



Nov 1992

**THIRD QUARTER 1992 PROGRESS REPORT
L.E. CARPENTER SITE, WHARTON, NEW JERSEY**

Nov 1992

Prepared on behalf of L.E. Carpenter and Company
for the New Jersey Department of Environmental
Protection and Energy

November 1992

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345948





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L.E. CARPENTER QUARTERLY REPORT

1.0 GROUNDWATER ACTIVITIES

1.1 Groundwater Level Measurement

Water level and product thickness measurements were made at all of the monitoring wells at the L.E. Carpenter site on 23 September 1992. Water level measurements were also made at eight (8) staff gauges and at the RP-I measurement point. Surface water elevations were determined by measuring the vertical distance between the top of the staff gauge (or paint mark) and the water surface. Difficulty was encountered in determining the exact depth-to-water at MW-11S and MW-12S due to product interference. MW-11S was found to contain only product. The floating product coated the product/water interface probe at MW-12S, making it impossible to determine the exact level of the product/water interface. Two erroneous water level readings were detected and corrected in the field. The initial depth-to-water reading for RW-3, 4.73 feet (ft), was later corrected to 6.73 ft. Similarly, the initial depth-to-water reading for DC-P1, 2.70 ft. was later corrected to 1.70 ft. (see Table 1, Appendix I).

1.2 Groundwater Sampling

Groundwater monitoring wells MW-4, MW-14S, MW-22, and MW-25 were sampled for benzene, toluene, ethylbenzene and xylene (BTEX) analysis (EPA method 602) on 23 September 1992. Decontaminated submersible pumps were used to purge a minimum of three well volumes from each well prior to sampling. Laboratory cleaned teflon bailers were used to collect the samples. The samples were placed in forty (40) milliliter glass vials and preserved at four (4) degrees centigrade in a designated sample cooler. The samples were shipped with the necessary trip and field blanks to the WESTON Analytical Laboratory in Lionville, PA via overnight courier under a WESTON chain-of-custody.

1.3 Product Recovery

No significant operational difficulties were encountered with the Enhanced Immiscible Product Recovery System (EIPRS). A total of 898 gallons of product was recovered by the system during the third quarter.



2.0 RESULTS

2.1 Groundwater Elevation Data

Groundwater level elevation data for the 23 September, 1992 measurement round are presented in Table 1 in Appendix I. For these data, water table depression caused by the floating product layer was corrected using the method presented in previous quarterly reports (see WESTON, 1992).

As stated in Section 1.1, accurate water level elevation and product thickness measurements could not be made at MW-11S and MW-12S. In order to show significant thicknesses of product at these locations, an estimated product thickness was determined by subtracting the bottom-of-screen elevation from the top-of-product elevation. The resulting values are presented in Table 1 (Appendix I).

2.2 BTEX Analytical Results

BTEX analytical results for groundwater samples collected from MW-4, MW-14S, MW-22 and MW-25 are presented in Appendix III. These data are summarized in Table 2-1. The highest BTEX concentration was detected in MW-22 (1,500 ug/l). BTEX concentrations for the remaining wells were significantly lower (i.e. 29 Y ug/l in MW-4 and 2.0 U ug/l in MW-14S and MW-25).



Table 2-1

**Summary of BTEX Analytical Results
Third Quarter 1992
L.E. Carpenter Site, Wharton, New Jersey**

Parameter	Concentration			
	MW-4	MW-14S	MW-22	MW-25
Benzene	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	2.0 N	1.0 U	1.0 U	1.0 U
Xylene	29 Y	2.0 U	1500	2.0 U

Data Qualifiers

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria, but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection os 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

Y = Compound confirmed present.

N = Compound not confirmed present.



3.0 DISCUSSION

Figure 1 (Appendix II) shows shallow groundwater levels which are similar to those presented in the WESTON, 1992. Figure 1 shows that during September the Rockaway River is a losing stream and, as such, it acts as a recharge boundary along the southern perimeter of the site. Note that in Table 1 (Appendix I) the water elevation at RP-2 is 625.55 feet above mean sea level (ft. MSL) and the water table elevation at MW-7 is 624.73 ft. MSL. In the area immediately adjacent to the river, the direction of the groundwater flow is toward the site. The general direction of groundwater flow is away from the Rockaway River and towards the Air Products drainage ditch. Data presented in Table 1 (Appendix I) indicate that the observed water level in MW-13S, on Air Products side of the ditch, is higher than that measured along the drainage ditch. This indicates that the direction of groundwater flow in the shallow (a) aquifer zone (i.e. above the clay layer) on the Air Products property is toward the Air Products drainage ditch.

The EIPRS was temporarily shut down prior to collecting the floating product thickness data in order to gain product thickness information under static (non-pumping) conditions. The product thickness isopach map presented in Figure 2 (Appendix II) shows a pattern which is similar to patterns presented previously for static conditions. The map shows substantial thicknesses of floating product at MW-11S and MW-12S. As mentioned in Section 2.1, the MW-12S product thickness value is an estimated value. The actual product thickness at this location is believed to be significantly less.

The equipotential map presented in Figure 3 (Appendix II) indicates that the general direction of groundwater flow is eastward in the intermediate aquifer zone. Figure 4 (Appendix II) shows that the general direction of groundwater flow in the deep aquifer zone is westward.

The analytical results presented in Table 2-1 indicate that the overall BTEX concentrations for the third quarter of 1992 are lower than those for the second quarter of 1992. The maximum xylene concentration was detected in MW-22 (1,500 ug/l). This is significantly lower than the value for the same well (20,000 ug/l) detected during the second quarter (see WESTON, 1992). Similarly, analytical results for samples collected during the second quarter of 1992 indicate concentrations of ethylbenzene and xylene in MW-14S at 34 and 160 ug/l, respectively. These two compounds were not detected in the third quarter MW-14S sample. The exact reason for this general contaminant concentration decrease is not clear, although it is possible that the removal of product by the EIPRS is having a positive impact on the dissolved organic compound concentrations. These data indicate that the eastern-most perimeter of the dissolved organic compound plume may have retreated slightly from its former position between MW-14S and MW-25 and may currently lie between MW-22 and MW-14S (see Figure 1 in Appendix I for well locations).



4.0 CONCLUSIONS

These data support several important conclusions for the site. First, discharge of groundwater to the Rockaway River is not possible because recharge occurs along that boundary. Shallow horizontal groundwater flow vectors along the river are oriented toward the site.

Second, the BTEX analytical results indicate that the eastern-most extent of dissolved volatile organic compounds is well defined. A comparison of third quarter 1992 data (see Table 2-1) with second quarter 1992 data (see WESTON, 1992) indicates that the dissolved organic compound plume may actually be contracting under the influence of the EIPRS system.

Third, the Air Products drainage ditch receives shallow groundwater discharges. Shallow groundwater flow on either side of the ditch is oriented toward the ditch. Since the organics detected at the site are less dense than water, the bulk of the dissolved organic compounds are restricted to the shallow aquifer zone. Since the shallow aquifer zone discharges to the Air Products drainage ditch, significant flow of organic compounds from the L.E. Carpenter property onto the central portion of the Air Products property is not likely.



REFERENCES

WESTON, 1992. Second Quarter 1992 Progress Report, L.E. Carpenter Site, Wharton, New Jersey. Report prepared for the New Jersey Department of Environmental Protection and Energy on behalf of L.E. Carpenter & Co., Cincinnati, OH



APPENDIX I

WATER LEVEL AND PRODUCT THICKNESS DATA

TABLE 1. DEPTH TO WATER, WATER LEVEL ELEVATION AND PRODUCT THICKNESS DATA,
MEASURED ON SEPTEMBER 23, 1992, L.E. CARPENTER SITE, WHARTON, NJ.

WELL	MEASURING PT. ELEVATION (FT MSL)	DEPTH TO PRODUCT (FT)	DEPTH TO WATER (FT)	PRODUCT THICKNESS OR SHEEN OBSERVATIONS (FT)	OBSERVED WATER LEVEL ELEVATION (FT MSL)	CORRECTED WATER LEVEL ELEVATIONS (FT MSL)
MW-001	638.97		14.30	SHEEN	624.67	624.67
MW-002	633.39		9.25	0.00	624.14	624.14
MW-003	632.27	8.10	8.35	0.25	623.92	624.14
MW-004	632.31		8.25	SHEEN	624.06	624.06
MW-005	632.20		7.48	0.00	624.72	624.72
MW-006	632.00		7.25	0.00	624.75	624.75
MW-007	630.68		5.95	SHEEN	624.73	624.73
MW-008	628.79		3.54	0.00	625.25	625.25
MW-009	630.18		5.30	0.00	624.88	624.88
MW-010	633.65		9.50	SHEEN	624.15	624.15
MW-11S	632.96	9.45	ALL PRODUCT	4.96***	NA***	NA***
MW-11I	632.82		8.45	0.00	624.37	624.37
MW-11D	632.42		5.80	0.00	626.62	626.62
MW-12S	633.18	7.90	ALL PRODUCT	6.51***	NA***	NA***
MW-12I	633.06		8.90	0.00	624.16	624.16
MW-13S	631.23		6.85	0.00	624.38	624.38
MW-13I	630.66		6.60	0.00	624.06	624.06
MW-14S	628.51		4.52	0.00	623.99	623.99
MW-14I	628.23		4.25	0.00	623.98	623.98
MW-14D	628.53		2.10	0.00	626.43	626.43
MW-15S	636.77		12.18	0.00	624.59	624.59
MW-15I	636.66		12.00	0.00	624.66	624.66
MW-16S	634.47		8.35	0.00	626.12	626.12
MW-16I	634.96		9.90	0.00	625.06	625.06
MW-17S	634.74		10.20	0.00	624.54	624.54
MW-17D	634.86		10.10	0.00	624.76	624.76
MW-18S	631.26		6.64	0.00	624.62	624.62
MW-18I	631.04		6.38	0.00	624.66	624.66
MW-18D	630.77		4.85	0.00	625.92	625.92
MW-019	638.88		13.35	0.00	625.53	625.53
MW-020	636.77		11.45	0.00	625.32	625.32
MW-021	628.80		5.05	0.00	623.75	623.75
MW-022	628.74		4.75	0.00	623.99	623.99
MW-023	630.64		3.95	0.00	626.69	626.69
MW-024	629.03		3.28	0.00	625.75	625.75
MW-025	627.33		3.53	0.00	623.80	623.80
RW-001	637.38		12.74	0.00	624.64	624.64
RW-002	631.68		7.60	SHEEN	624.08	624.08
RW-003	631.99		6.73	0.00	625.26	625.26
GEI-1I	630.78		6.20	0.00	624.58	624.58
GEI-2S	637.27		12.15	0.00	625.12	625.12
GEI-2I	637.27		12.40	0.00	624.87	624.87
GEI-3I	639.85		14.58	0.00	625.27	625.27

* Estimated water level elevation calculated using a product specific gravity of 0.86.

** Measuring point elevation corrected to top of plastic cover casing.

*** Estimated minimum product thickness calculated by subtracting bottom-of-screen elevation from the top-of-product elevation.

NA*** Accurate water level measurement not available due to product interference.

TABLE 1 CONTINUED. DEPTH TO WATER, WATER LEVEL ELEVATION AND PRODUCT THICKNESS DATA.
MEASURED ON SEPTEMBER 23, 1992, L.E. CARPENTER SITE, WHARTON, N.J.

MEASURING POINT	ELEVATION OF MEASURING POINT (FT MSL)	DEPTH TO WATER (FT)	WATER LEVEL ELEVATION (FT MSL)
DC-P0	625.73	NA	NA
DC-P1	625.26	1.70	623.56
DC-P2	626.79	1.90	624.89
DC-P3	625.22	2.10	623.12
DC-P4	625.10	2.10	623.00
DC-P5	625.16	2.30	622.86
RP-01	629.65	3.56	626.09
RP-02	627.75	2.20	625.55
RP-03	627.11	3.30	623.81

NA Water level below bottom of staff guage.

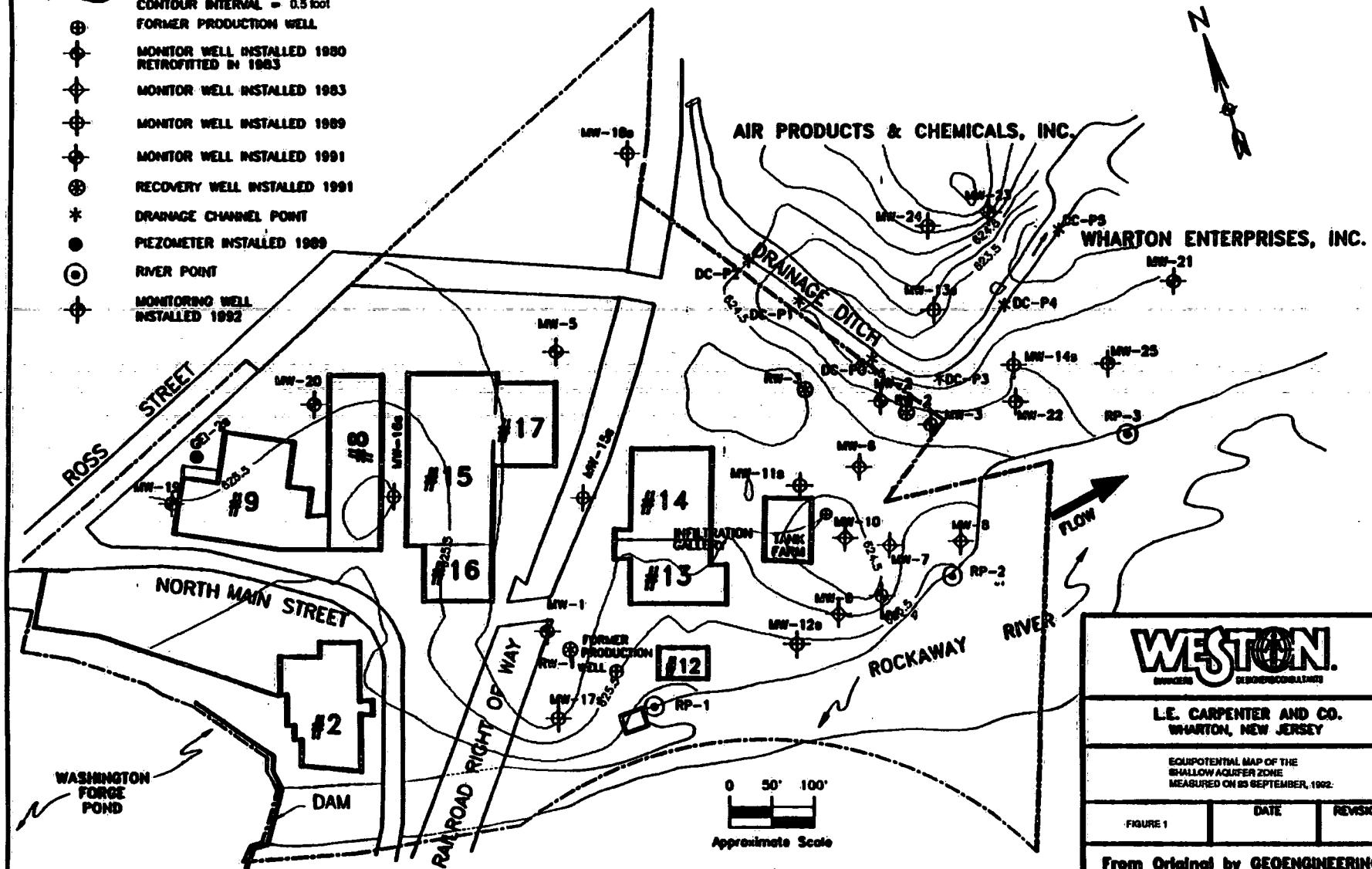


APPENDIX II

EQUIPOTENTIAL MAPS

LEGEND

- PROPERTY LINE
- CONTOUR LINE
- CONTOUR INTERVAL = 0.5 foot
- FORMER PRODUCTION WELL
- MONITOR WELL INSTALLED 1980
RETROFITTED IN 1983
- MONITOR WELL INSTALLED 1983
- MONITOR WELL INSTALLED 1989
- MONITOR WELL INSTALLED 1991
- RECOVERY WELL INSTALLED 1991
- DRAINAGE CHANNEL POINT
- PIEZOMETER INSTALLED 1989
- RIVER POINT
- MONITORING WELL
INSTALLED 1992



WESTON
MANAGERS CONSOLIDATION

L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY

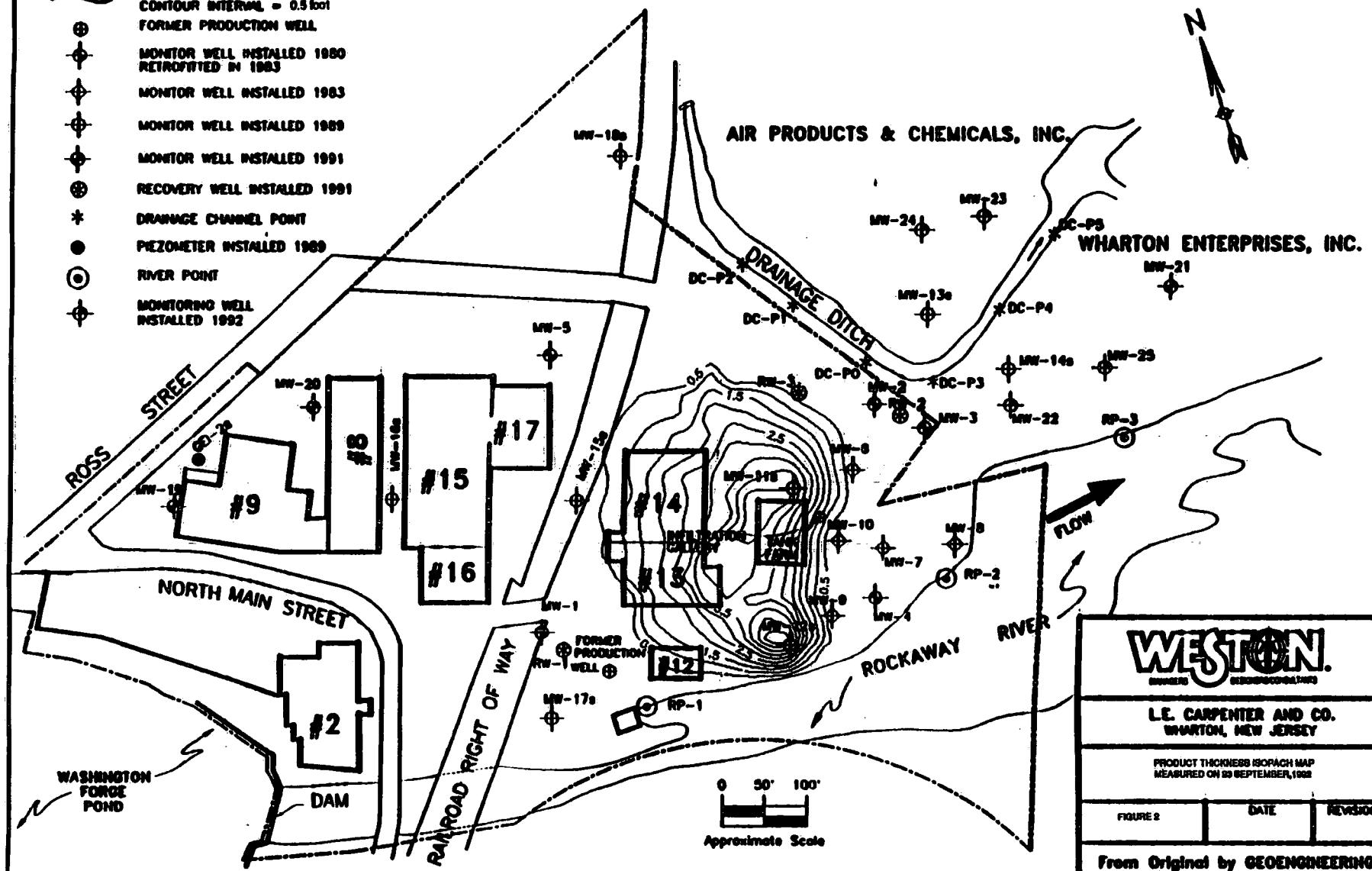
EQUIPOTENTIAL MAP OF THE
SHALLOW AQUIFER ZONE
MEASURED ON 13 SEPTEMBER, 1992.

FIGURE 1 DATE REVISION

From Original by GEOENGINEERING

LEGEND

- PROPERTY LINE
- CONTOUR LINE
- CONTOUR INTERVAL = 0.5 foot
- FORMER PRODUCTION WELL
- MONITOR WELL INSTALLED 1980
RETROFITTED IN 1983
- MONITOR WELL INSTALLED 1983
- MONITOR WELL INSTALLED 1989
- MONITOR WELL INSTALLED 1991
- RECOVERY WELL INSTALLED 1991
- DRAINAGE CHANNEL POINT
- PIEZOMETER INSTALLED 1989
- RIVER POINT
- MONITORING WELL
INSTALLED 1992



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WHARTON, NEW JERSEY

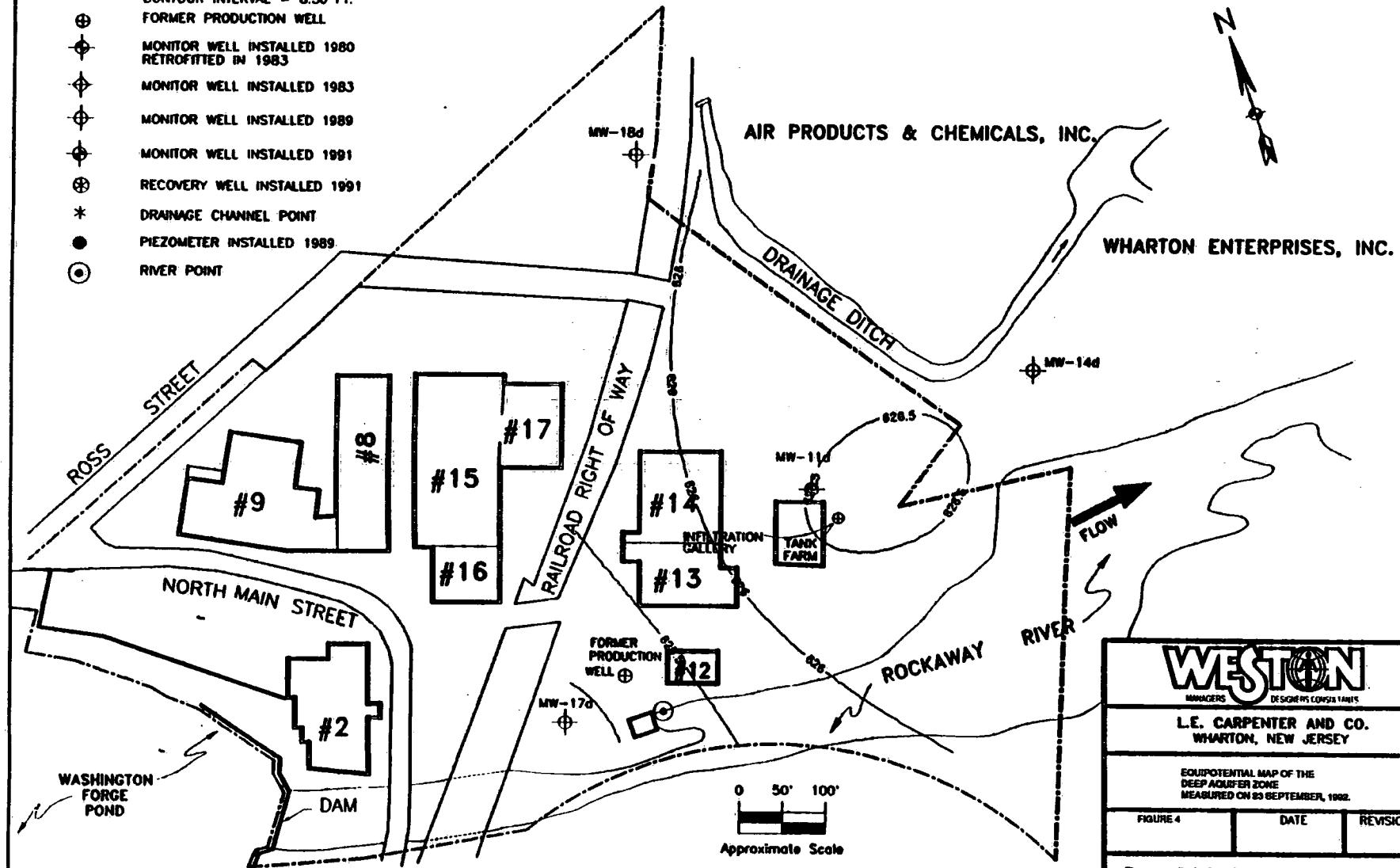
PRODUCT THICKNESS ISOPACH MAP
MEASURED ON 29 SEPTEMBER, 1988

FIGURE 2 DATE REVISION

From Original by GEOENGINEERING

LEGEND

- PROPERTY LINE
- CONTOUR LINE
CONTOUR INTERVAL = 0.50 FT.
- ⊕ FORMER PRODUCTION WELL
- ◆ MONITOR WELL INSTALLED 1980
RETROFITTED IN 1983
- ◆ MONITOR WELL INSTALLED 1983
- ◆ MONITOR WELL INSTALLED 1989
- ◆ MONITOR WELL INSTALLED 1991
- ◆ RECOVERY WELL INSTALLED 1991
- * DRAINAGE CHANNEL POINT
- PIEZOMETER INSTALLED 1989
- ◎ RIVER POINT



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WHARTON, NEW JERSEY

EQUIPOTENTIAL MAP OF THE
DEEP AQUIFER ZONE
MEASURED ON 23 SEPTEMBER, 1982.

FIGURE 4 DATE REVISION

From Original by GEOENGINEERING



APPENDIX III

BTEX ANALYTICAL RESULTS

Roy F. Weston, Inc. - Lionville Laboratory
 602X ANALYTICAL DATA PACKAGE FOR
 LE CARPENTER

DATE RECEIVED: 09/24/92

RFW LOT #: 9209L010

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS	
BTEX TB	001		W	92LV5140	09/23/92	N/A	10/06/92
BTEX TB	001	C1	W	92LV1134	09/23/92	N/A	10/07/92
BTEX FB	002		W	92LV5140	09/23/92	N/A	10/06/92
BTEX FB	002	C1	W	92LV1134	09/23/92	N/A	10/07/92
MW-25	003		W	92LV5140	09/23/92	N/A	10/06/92
MW-25	003	C1	W	92LV1134	09/23/92	N/A	10/07/92
MW-25	003 MS		W	92LV5140	09/23/92	N/A	10/07/92
MW-25	003 MS C1		W	92LV1134	09/23/92	N/A	10/07/92
MW-25	003 MSD		W	92LV5140	09/23/92	N/A	10/07/92
MW-25	003 MSD C1		W	92LV1134	09/23/92	N/A	10/07/92
MW-4	004		W	92LV5140	09/23/92	N/A	10/07/92
MW-4	004	C1	W	92LV1134	09/23/92	N/A	10/08/92
MW-14S	005		W	92LV5140	09/23/92	N/A	10/07/92
MW-14S	005	C1	W	92LV1134	09/23/92	N/A	10/08/92
MW-22	006		W	92LV5140	09/23/92	N/A	10/07/92
MW-22	006	C1	W	92LV1134	09/23/92	N/A	10/08/92
MW-22	006	C2	W	92LV1134	09/23/92	N/A	10/07/92

LAB QC:

BLK	MB1		W	92LV5140	N/A	N/A	10/06/92
BLK	MB1		W	92LV1134	N/A	N/A	10/07/92
BLK	MB1 BS		W	92LV1134	N/A	N/A	10/07/92



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Raw QC Data.....	95

000001



CHAIN OF CUSTODY

9209L010

Custody Transfer Record/Lab Work Request

Client	L.E. CARPENTER			Refrigerator #								
Est. Final Proj. Sampling Date				Liquid	1 gal.							
Work Order #	6720-002-015 - 0200			Solid								
Project Contact/Phone #	K. TYSON 5839			Volume	Liquid	4 ml						
AD Project Manager	DAN HILL Mike Young			Solid								
QC	CLP	Del	CLP	Preservatives	HCL							
TAT	30 DAY			ANALYSES REQUESTED	ORGANIC			INORG				
Date Rec'd	9/24/92				VOA	BNA	Pest PCB	Herb	Metal	CN		
Account #	LECHRP-CLP											

00000002

MATRIX CODES: S - Soil SE - Sediment SO - Solid SL - Sludge W - Water D - Oil A - Air DS - Drum Solids DL - Drum Liquids EP/TCPL Leachate WI - Wipe X - Other F - Fish	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS MSD	Matrix	Date Collected	Time Collected	WESTON Analytics Use Only						
							1	2	3	4	5	6	
		001 BTEX TB		H ₂ O	9/23	1:00	X						3. Interfered
		2 BTEX FB				1:00	X						2
		BTEx - 10/15/92											
		X MW-25				2:00	X						10
		3 MW-25 MS	✓			2:00	X						1
		3 MW-25 MSD	✓			2:00	X						1
		4 MW-4				3:00	X						2
		5 MW-145				3:00	X						2
		6 MW-122		+	-	4:00	X						2

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

EPA METHOD 602
30 DAY TAT

DATE/REVISIONS:

1.

2.

3.

4.

5.

6.

WESTON Analytics Use Only

Samples were:

1) Shipped or Hand Delivered Airbill # 2) Ambient or Chilled 3) Received in Good Condition Y or N4) Labels Indicate Properly Preserved Y or N5) Received Within Holding Times Y or N

COC Tape was:

1) Present on Outer Package Y or N

2) Unbroken on Outer Package Y or N

3) Present on Sample Y or N

4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
Mike Young				Mike Young	9/25/92		
Jeff E	Jefferson	9-24-92	930				

Discrepancies Between Samples Labels and COC Record? Y or N

NOTES:

Indicated on type of COC.

9209L010

Custody Transfer Record/Lab Work Request

Client L. F. CARPENTER

Est. Final Proj. Sampling Date

Work Order # 6270-002-015

Project Contact/Phone # K. TYSON

AD Project Manager ONEILL

QC QA Del CLP TAT 30 12/14

Date Rec'd _____ Date Due _____

Account # _____

MATRIX CODES:

 S - Soil
 SE - Sediment
 SO - Solid
 SL - Sludge
 W - Water
 O - Oil
 A - Air
 DS - Drum Solids
 DL - Drum Liquids
 L - EPTCLP Leachate
 WI - Wipe
 X - Other
 F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓)	
		MS	MSD

007 MW-19		H ₂ O	9/24	1:00	X
1 MW-19 MS	✓			1:00	X
1 MW-19 MSD	✓	✓	✓	1:00	X
8 MEK TB		✓		1	X
9 MEK FB		✓		1	X

Refrigerator #		Liquid				Solid				Liquid				Solid				Preservatives		ORGANIC				INORG	
#	Type	Container	V	A	N	P	C	B	N	P	C	B	N	P	C	M	N	VOA	BNA	Pest PCB	Herb	Metal	CN		

WESTON Analytics Use Only

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

Relinquished

DATE/REVISIONS:

9/25/92 Batch split Per M. Young.

- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____

Relinquished by	Received by	Date	Time
762. Jpn	Brum Shpr	9/24/92	0930am

Relinquished by	Received by	Date	Time
Fed Ex	EDS	9/24/92	

 Discrepancies Between
 Samples Labels and
 COC Record? Y or N
 NOTES:

WESTON Analytics Use Only

- Samples were:
 1) Shipped _____ or Hand Delivered _____
 Airbill # _____
- COC Tape was:
 1) Present on Outer Package Y or N
 2) Unbroken on Outer Package Y or N
 3) Received in Good Condition Y or N
 4) Labels Indicate Properly Preserved Y or N
 5) Received Within Holding Times Y or N
 COC Record Present Upon Sample Rec'd Y or N

000004



DATA SUMMARY

RFW Batch Number: 9209L010

Client: LE CARPENTER

Work Order: 06720-002-015-0200-00 Page: 1

	Cust ID:	BTEX TB	BTEX TB	BTEX FB	BTEX FB	MW-25	MW-25
Sample Information	RFW#:	001	001	002	002	003	003
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
		CONFIRM	CONFIRM	CONFIRM	CONFIRM	CONFIRM	CONFIRM
aaa-Trifluorotoluene		104 %	99 %	104 %	98 %	100 %	97 %
Benzene		1.0 U	NA	1.0 U	NA	1.0 U	NA
Ethylbenzene		1.0 U	NA	1.0 U	NA	1.0 U	NA
Toluene		1.0 U	NA	1.0 U	NA	1.0 U	NA
Xylene (total)		2.0 U	NA	2.0 U	NA	2.0 U	NA

	Cust ID:	MW-25	MW-25	MW-25	MW-25	MW-4	MW-4
Sample Information	RFW#:	003 MS	003 MS	003 MSD	003 MSD	004	004
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
		CONFIRM	CONFIRM	CONFIRM	CONFIRM	CONFIRM	CONFIRM
aaa-Trifluorotoluene		105 %	100 %	104 %	95 %	75 %	89 %
Benzene		111 %	99 %	106 %	96 %	1.0 U	NA
Ethylbenzene		103 %	98 %	98 %	96 %	1.0 U	NA
Toluene		104 %	97 %	99 %	96 %	2.0 N	1.0 U.
Xylene (total)		102 %	101 %	98 %	99 %	29 Y	17

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not requested. NS= Not spiked.

% = Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. * = Outside of EPA CLP QC

RFW Batch Number: 9209L010

Client: LE CARPENTER

Work Order: 06720-002-015-0200-00 Page: 2

	Cust ID:	MW-14S	MW-14S	MW-22	MW-22	MW-22	BLK
Sample Information	RFW#:	005	005	006	006	006 DL	92LV5140-MB1
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
	D.F.:	1.00	1.00	1.00	1.00	10.0	1.00
	Units:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
		CONFIRM	CONFIRM	CONFIRM	CONFIRM		
aaa-Trifluorotoluene		103 %	106 %	48 * %	98 %	100 %	107 %
Benzene		1.0 U	NA	1.0 U	NA	NA	1.0 U
Ethylbenzene		1.0 U	NA	1.0 U	NA	NA	1.0 U
Toluene		1.0 U	NA	1.0 U	NA	NA	1.0 U
Xylene (total)		2.0 U	NA	E	E	1500	2.0 U

	Cust ID:	BLK	BLK BS
Sample Information	RFW#:	92LV1134-MB1	92LV1134-MB1
	Matrix:	WATER	WATER
	D.F.:	1.00	1.00
	Units:	UG/L	UG/L
aaa-Trifluorotoluene		114 %	111 %
Benzene		1.0 U	108 %
Ethylbenzene		1.0 U	107 %
Toluene		1.0 U	107 %
Xylene (total)		2.0 U	106 %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not requested. NS= Not spiked.

*= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

000007



GC-VOA

SURROGATE RECOVERY (%) CONTROL LIMITS

COMPOUND	BLANKS, BS, BSD	WATER MS/MSD	SOILS MS/MSD
bromochloromethane	60-130	60-140	40-130
aaa-trifluorotoluene	70-130	60-140	40-130

~~WISSEN.~~

GC-VOA

BLANK SPIKE RECOVERIES (method control limits)

(METHOD :)

COMPOUND	QC limits (ppb)	QC limits (%)
trans-1,2-dichloroethene	12.9 - 27.2	64.0 - 136.0
bromoform	14.7 - 25.3	73.5 - 126.5
1,1,2,2-tetrachloroethane	9.8 - 30.2	49.0 - 151.0
1,2-dichloroethane	14.3 - 25.7	71.5 - 128.5
bromodichloromethane	15.1 - 24.8	76.0 - 124.0
trans-1,3-dichloropropene	12.3 - 27.2	64.0 - 136.0
cis-1,3-dichloropropene	12.3 - 27.2	64.0 - 136.0
benzene	15.4 - 24.6	77.0 - 123.0
toluene	15.5 - 24.5	77.5 - 122.5
ethylibenzene	12.5 - 27.4	63.0 - 137.0
1,1,1-trichloroethane	14.1 - 25.9	71.0 - 129.0

000009



CASE NARRATIVE

0000010

ROY F. WESTON, INC.
LIONVILLE ANALYTICAL LABORATORY
ANALYTICAL CASE NARRATIVE



Client: LE CARPENTER
RFW #: 9209L010

W.O. #: 06720-002-015-0200-00
Date Received: 09-24-92

GC VOLATILE

The set of samples consisted of six (6) water samples collected on 09-23-92.

The samples were analyzed according to criteria set forth in Method 602 for Selected Aromatic Volatile Organic target compounds on 10-06,07,08-92.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. Holding times were exceeded by several hours for the confirmation analyses of samples MW-22, MW-4 and MW-14S. All primary analyses were performed within holding times.
2. One (1) of twenty (20) surrogate recoveries was outside laboratory control limits.
3. All matrix spike recoveries were within method control limits.
4. All blank spike recoveries were within method control limits.
5. Sample MW-22 required a 10-fold dilution because it contained high levels of both target and non-target compounds.
6. Responses for aromatic compounds had increased compared with initial calibration on both instrument 20 and Instrument 26. Data collected on Instrument 20 was quantitated against the daily check sample (92LV5140-MB1S). To verify that results were accurate, all samples were re-analyzed on Instrument 25. Calibration data for Instrument 25 was inadvertently purged due to LIMS complications. Therefore, all data was manually calculated. Both sets of results have been reported.

Marguer M. Beatty Jr.
J. Peter Hershey, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

11/4/92
Date

WESTERNGLOSSARY OF GC VOA DATADATA QUALIFIERS

- U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.
- J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.
- B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.
- E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
- I = Interference.
- N = Not Confirmed.
- Y = Confirmed Positive.

ABBREVIATIONS

- BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.
- BSD = Indicates blank spike duplicate.
- MS = Indicates matrix spike.
- MSD = Indicates matrix spike duplicate.
- DL = Indicates that surrogate recoveries were not obtained because the extract had to be diluted for analysis.
- NA = Not applicable.
- DF = Dilution factor.
- NR = Not required.

000012



QC SUMMARY

0000013

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

06720-002-015-0203-00

11/3/92
m/tLab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot No.: 9209L010-003MATRIX Spike - Sample No.: MW-25Level: (low/med) LOW

COMPOUND	SPIKE ADDED UG/L	SAMPLE CONCENTRATION UG/L	MS CONCENTRATION UG/L	MS % REC #	QC LIMITS REC
Benzene_____	20.0	0	22.1	111	77 -123
Ethylbenzene_____	20.0	0	20.5	103	63 -137
Toluene_____	20.0	0	20.7	104	77 -123
Xylene (total)_____	20.0	0	20.4	102	0 -200

COMPOUND	SPIKE ADDED UG/L	MSD CONCENTRATION UG/L	MSD % REC #	% RPD #	QC LIMITS RPD REC
Benzene_____	20.0	21.2	106	4	200 77 -123
Ethylbenzene_____	20.0	19.6	98	5	200 63 -137
Toluene_____	20.0	19.7	99	4	200 77 -123
Xylene (total)_____	20.0	19.6	98	4	200 0 -200

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 4 outside limitsSpike Recovery: 0 out of 8 outside limits

COMMENTS:

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Roy F. Weston, Inc.06720-002-015-0200-00
Contract: 6720-02-15M12
1/13/82Case No.: LE CARPENTERRFW Lot No.: 9209L010-003MATRIX Spike - Sample No.: MW-25CONLevel: (low/med) LOW

COMPOUND	SPIKE ADDED UG/L	SAMPLE CONCENTRATION UG/L	MS CONCENTRATION UG/L	MS % REC #	QC LIMITS REC
Benzene	20.0	0	19.8	99	77 -123
Ethylbenzene	20.0	0.0330	19.6	98	63 -137
Toluene	20.0	0	19.5	97	77 -123
Xylene (total)	20.0	0	20.1	101	0 -200

COMPOUND	SPIKE ADDED UG/L	MSD CONCENTRATION UG/L	MSD % REC #	% RPD #	QC LIMITS RPD REC
Benzene	20.0	19.2	96	3	200 77 -123
Ethylbenzene	20.0	19.2	96	2	200 63 -137
Toluene	20.0	19.2	96	1	200 77 -123
Xylene (total)	20.0	19.9	99	2	200 0 -200

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 4 outside limitsSpike Recovery: 0 out of 8 outside limits

COMMENTS:

WATER VOLATILE BLANK SPIKE RECOVERY

0290015

Lab Name: Roy F. Weston, Inc.Contract: ONECase No.: LE CARPENTERRFW Lot No.: 9209L010BLANK Spike - Sample No.: BLKLV1134-MB1Level: (low/med) LOW

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	BS CONCENTRATION	BS %	QC LIMITS
	UG/L	UG/L	UG/L	REC #	REC
Benzene_____	0	0	0		77 -123
Ethylbenzene_____	0	0.0630	0		63 -137
Toluene_____	0	0	0		77 -123
Xylene (total)_____	0	0	0		0 -200

Column to be used to flag recovery value with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 4 outside limits

COMMENTS:

000016

SAMPLE DATA
in increasing RFW# order

GC VOLATILES SHEET

000001
17/3/92 CLIENT SAMPLE NO.Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0200

BTEX TB

Client: LE CARPENTERMatrix: WATERLab Sample ID: 9209L010-001Sample wt/vol: 5.00 (g/mL) MLLab File ID: J6281078Level: (low/med) LOWDate Received: 09/24/92% Moisture: not dec. Date Analyzed: 10/06/92Column: (pack/cap) PACKDilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

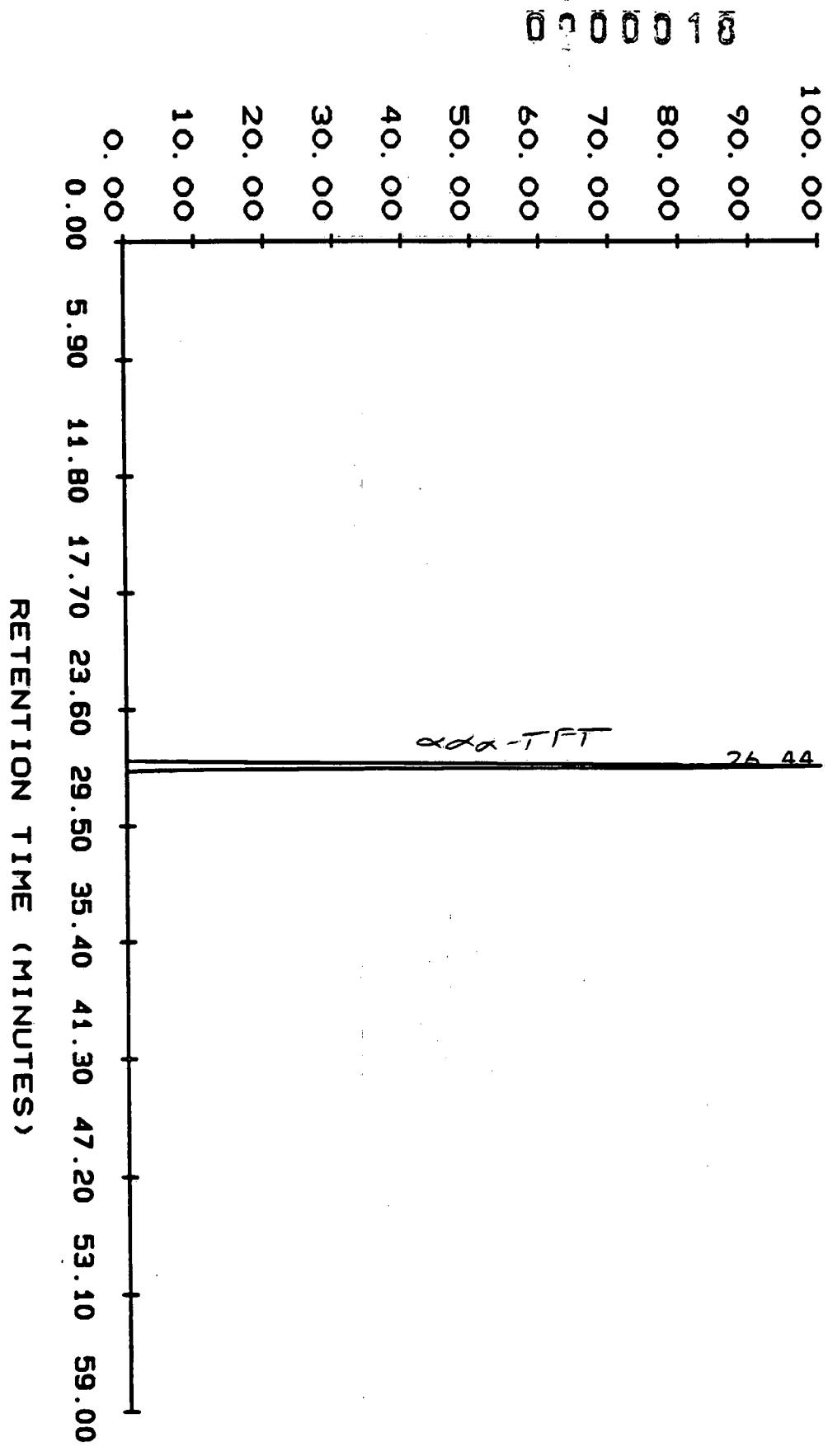
71-43-2-----	Benzene	1.0	U
100-41-4-----	Ethylbenzene	1.0	U
108-88-3-----	Toluene	1.0	U
1330-20-7-----	Xylene (total)	2.0	U

12/88 Rev.

9209L010-001

SAMPLE NO. : 10069220
TEST NO. : .03
METHOD NO. : 20E / 20E
100.00

INSTRUMENT: 20
DATE TIME: 10/06/92 20:38:11
PAGE NO. : 01



Y MAXIMUM: 10869.
Y MINIMUM: 7108.

START TIME: 0.00
END TIME: 59.00

0000019

Roy F. Weston, Inc. - Lionville Laboratory

10/06/92 23:40:19

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10069220 .03 INST:20 VIAL:F0 SEQ NUMBER:003
 TEST : 0602X DATE-TIME INJECTED : 10/06/92 20:38:11
 COLLECTION TIME : 59.00 DATE-TIME PROCESSED : 10/06/92 23:40:19
 METHOD: 20E / 20B REV #: 00122 ANALYST: LINDAD SAMP RATE: 0.78
 CLIENT ID: BTEX TB SAMPLE VOL: 5.0 ML
 CLIENT: LE CARPENTER COLUMN TYPE: 1% SP1000, PID
 LAB ID: 9209L010-001 RAW FILE: RAW2:J6281078
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES #	GR COMPONENT NAME	HEIGHT	
					CONC	PPB
001	543219	37478		13.470 M 1,2-DICHLOROETHENE 20.180 M BENZENE 26.444 M aaa-TRIFLUOROTOLUENE 27.530 M TOLUENE 32.840 M ETHYLBENZENE 41.130 M M - XYLENE 43.000 M O - XYLENE 52.320 M 1,2-DICHLOROBENZENE	49.961	20.83 (SP)

$$\frac{37478}{35987} \times 20 = 20.83$$

Bry 10/3-19 ✓

GC VOLATILES SHEET

000020 CLIENT SAMPLE NO.
11/3/92Lab Name: Roy F. Weston, Inc. Work Order: 06710-002-015-0200-00BTEX TBCONClient: LE CARPENTERMatrix: WATER Lab Sample ID: 9209L010-001Sample wt/vol: 5.00 (g/mL) ML Lab File ID: J7240727Level: (low/med) LOW Date Received: 09/24/92% Moisture: not dec. Date Analyzed: 10/07/92Column: (pack/cap) CAP Dilution Factor: 1.00

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

71-43-2-----Benzene	NA	
100-41-4-----Ethylbenzene	NA	
108-88-3-----Toluene	NA	
1330-20-7-----Xylene (total)	NA	

12/88 Rev.

9209L010-001

SAMPLE NO. : 10079226 . 05

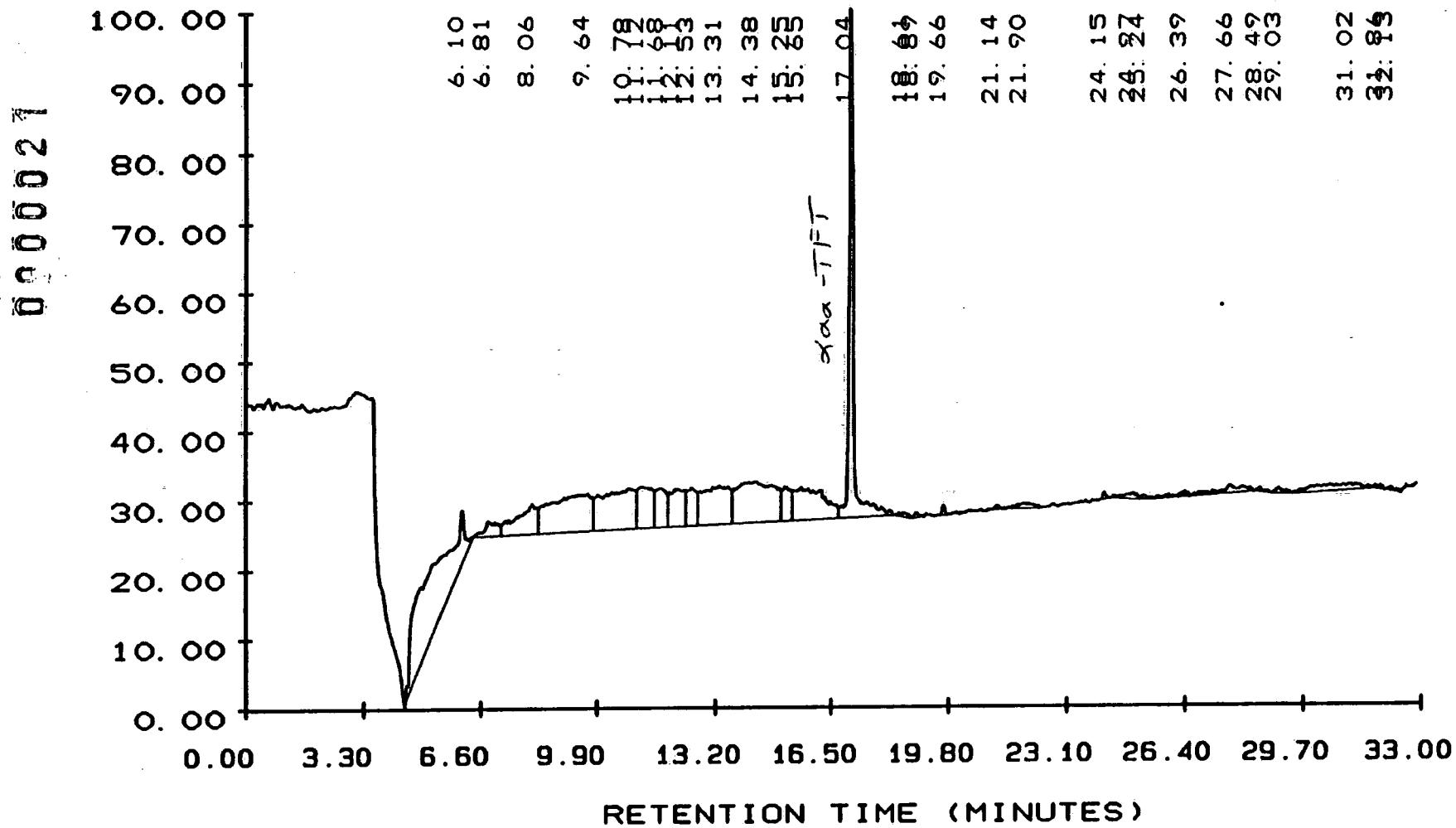
TEST NO. :

METHOD NO. : 26A / 26A

INSTRUMENT: 26

DATE TIME: 10/07/92 20:31:52

PAGE NO. : 01



Y MAXIMUM: 51135.

Y MINIMUM: 48563.

START TIME: 0.00

END TIME: 33.00

0000022

Roy F. Weston, Inc. - Lionville Laboratory

10/07/92 22:27:10

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10079226 .05
 TEST : 0602X
 COLLECTION TIME : 32.86
 METHOD: 26A / 26A REV #: 00003 ANALYST: LINDAD SAMP RATE: 1.56
 CLIENT ID: BTEX TB SAMPLE VOL: 5.0 ML
 CLIENT: LE CARPENTER COLUMN TYPE: DB624, PID
 LAB ID: 9209L010-001 RAW FILE: RAW2:J7240727
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES #	GR COMPONENT NAME	HEIGHT CONC PPB
001	211219	1938		6.100	
002	14822	559	T	6.814 M 1,1-DICHLOROETHENE	
003	45728	1099	T	8.063	
				8.900 M TRANS-1,2-DICHLOROET	
004	114374	1374	T	9.636	
005	96838	1504	T	10.778	
006	43514	1556	T	11.124	
007	31718	1454	T	11.675 M CIS-1,2-DICHLOROETHE	0.857
008	38656	1402	T	12.115	
009	27027	1395	T	12.534	
010	77197	1433	T	13.315	
011	114726	1514	T	14.377 M BENZENE	0.545
012	21120	1252	T	15.246	
013	72128	1225	T	15.648 M TRICHLOROETHENE	0.006
014	158138	18656	V	17.045 M aaa-TRIFLUOROTOLUENE	28.214
				18.400 M 2-CHLOROETHYL VINYLET	
015	2842	156	V	18.613 M CIS-1,3-DICHLOROPROP	0.434
016	1734	189	V	18.892	
				19.640 M TOLUENE	19.78
017	2202	374	V	19.664 M TRANS-1,3-DICHLOROPR	0.582
018	1926	149	V	21.143 M TETRACHLOROETHENE	
019	6739	201	V	21.895	
				23.420 M CHLOROBENZENE	
				23.790 M ETHYL BENZENE	
020	1760	250	V	24.154 M M+P-XYLENE	
021	5664	224	V	24.972	
022	1632	158	V	25.242 M O-XYLENE	0.014
023	5069	214	V	26.387	A1< DL
024	13933	300	V	27.661	
025	1952	155	V	28.488	
026	3341	215	V	29.027 M 1,3-DICHLOROBENZENE	
				29.930 M 1,4-DICHLOROBENZENE	
027	21395	228	V	31.024 M 1,2-DICHLOROBENZENE	0.191
028	1728	161	V	31.856	
029	1434	122		32.133	

10/07/92

0200023 CLIENT SAMPLE NO.

GC VOLATILES SHEET

11/3/92

06720-002-015-0200-00

BTEX FB

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0200Client: LE CARPENTERMatrix: WATERLab Sample ID: 9209L010-002Sample wt/vol: 5.00 (g/mL) MLLab File ID: J6281109Level: (low/med) LOWDate Received: 09/24/92% Moisture: not dec. Date Analyzed: 10/06/92Column: (pack/cap) PACKDilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----	Benzene	1.0	U
100-41-4-----	Ethylbenzene	1.0	U
108-88-3-----	Toluene	1.0	U
1330-20-7-----	Xylene (total)	2.0	U

12/88 Rev.

9209L010-002

SAMPLE NO. : 10069220 .04

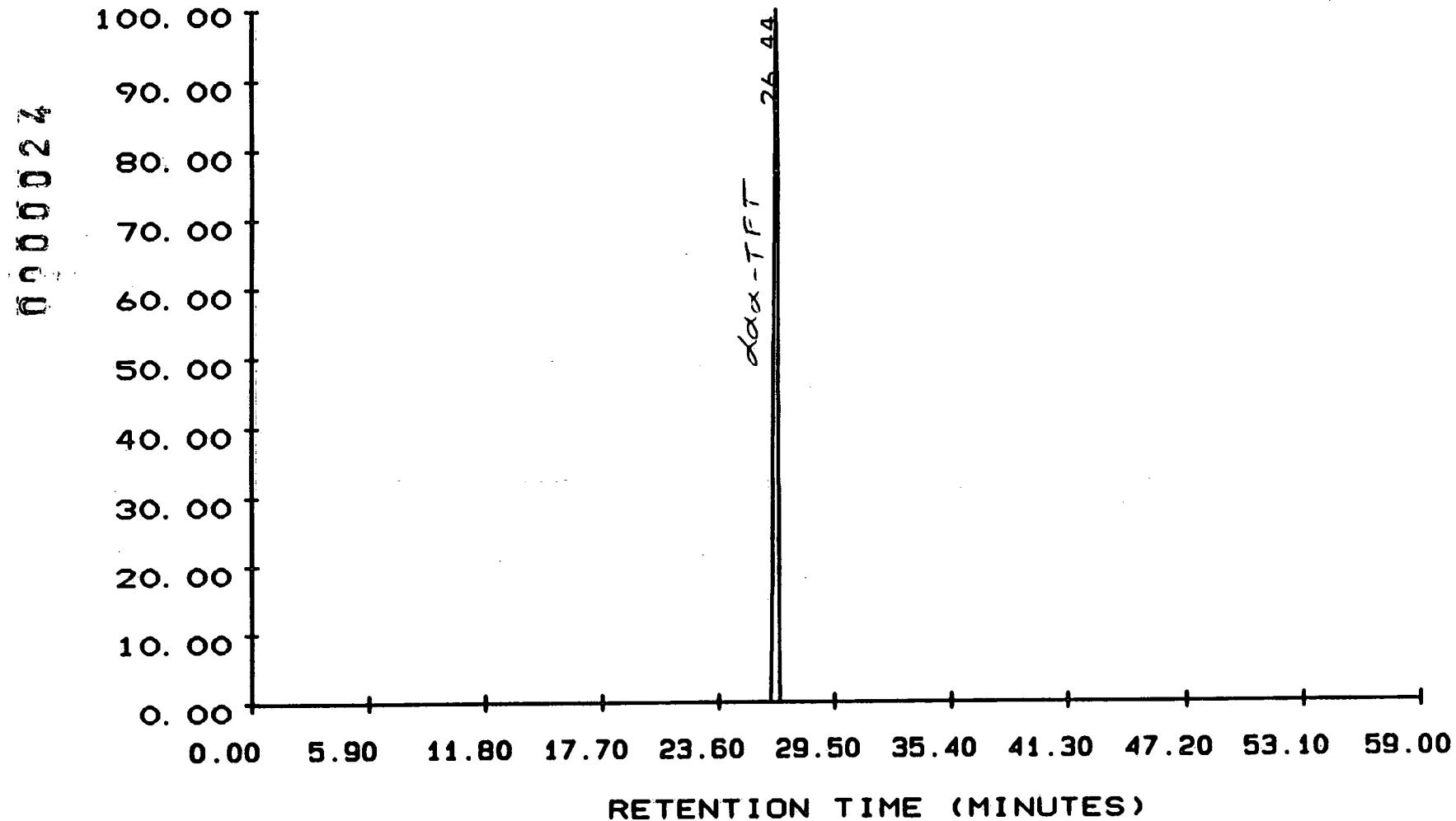
TEST NO. :

METHOD NO. : 20E / 20E

INSTRUMENT: 20

DATE TIME: 10/06/92 21:48:40

PAGE NO. : 01



Y MAXIMUM: 10847.

Y MINIMUM: 7108.

START TIME: 0.00

END TIME: 59.00

0000025

Roy F. Weston, Inc. - Lionville Laboratory

10/06/92 23:40:40

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10069220 .04
TEST : 0602X
COLLECTION TIME : 59.00
METHOD: 20E / 20B REV #: 00122 ANALYST: LINDAD SAMP RATE: 0.78
CLIENT ID: BTEX FB
CLIENT: LE CARPENTER
LAB ID: 9209L010-002
SAMPLE WT : % MOISTURE :
INST:20 VIAL:FO SEQ NUMBER:004
DATE-TIME INJECTED : 10/06/92 21:48:40
DATE-TIME PROCESSED : 10/06/92 23:40:40
SAMPLE VOL: 5.0 ML
COLUMN TYPE: 1% SP1000, PI,
RAW FILE: RAW2:J6281109
DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES #	GR COMPONENT NAME	HEIGHT
					CONC
001	522202	37267		13.470 M 1,2-DICHLOROETHENE 20.180 M BENZENE 26.444 M aaa-TRIFLUOROTOLUENE 27.530 M TOLUENE 32.840 M ETHYLBENZENE 41.130 M M - XYLENE 43.000 M O - XYLENE 52.320 M 1,2-DICHLOROBENZENE	49.673 20.71 (SP) vs BS

B'Y 10/30/92

000002 E CLIENT SAMPLE NO.

GC VOLATILES SHEET

BTEX FBCON

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0200Client: LE CARPENTERMatrix: WATERLab Sample ID: 9209L010-002Sample wt/vol: 5.00 (g/mL) MLLab File ID: J7240740Level: (low/med) LOWDate Received: 09/24/92% Moisture: not dec. Date Analyzed: 10/07/92Column: (pack/cap) CAPDilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----	Benzene	NA
100-41-4-----	Ethylbenzene	NA
108-88-3-----	Toluene	NA
1330-20-7-----	Xylene (total)	NA

12/88 Rev.

9209L010-002

SAMPLE NO. : 10079226 .06

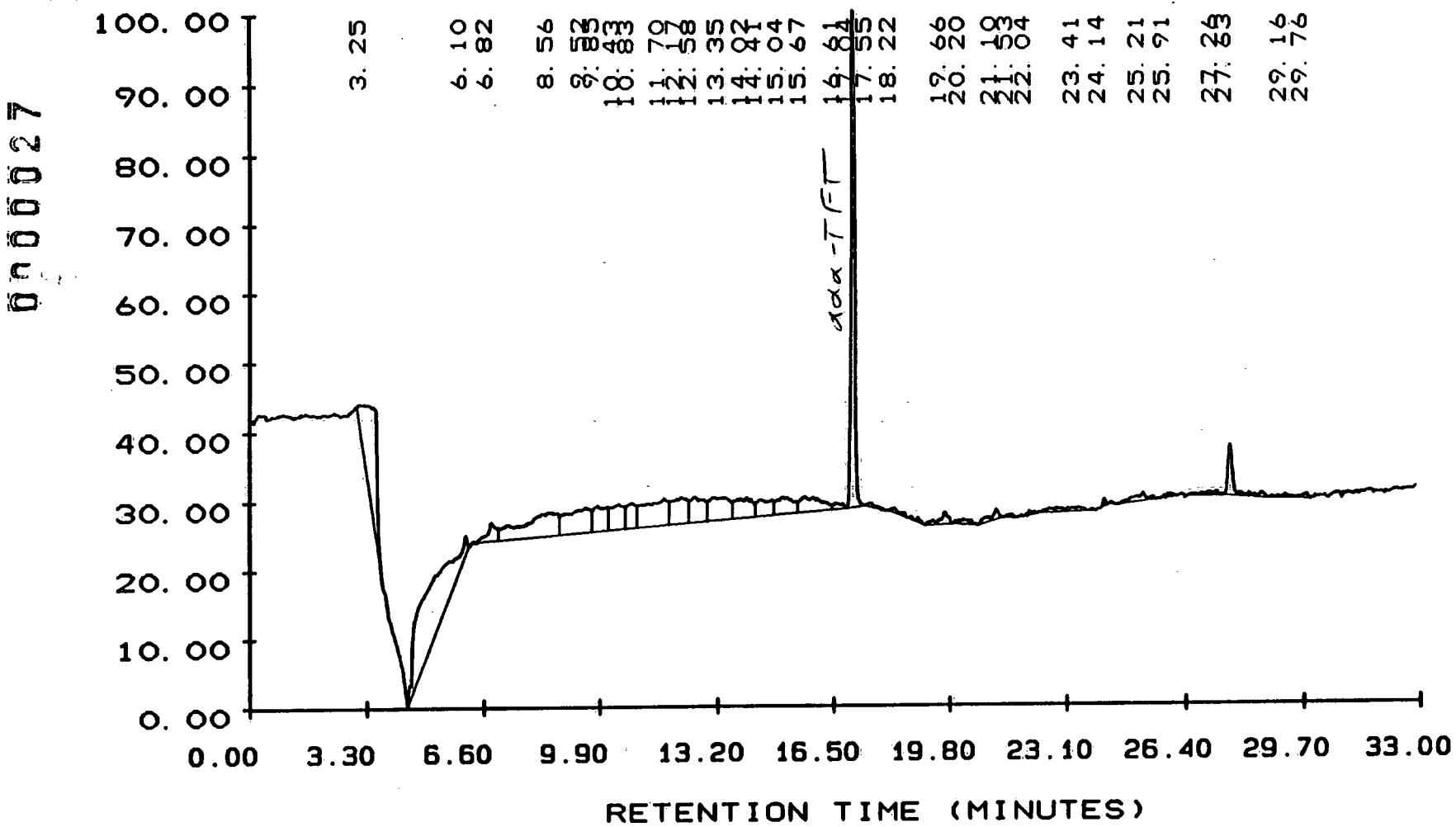
TEST NO. :

METHOD NO. : 26A / 26A

INSTRUMENT: 26

DATE TIME: 10/07/92 21:16:06

PAGE NO. : 01



0000028

Roy F. Weston, Inc. - Lionville Laboratory

10/07/92 22:27:41

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10079226 .06 INST:26 VIAL:F0 SEQ NUMBER:006
 TEST : 0602X DATE-TIME INJECTED : 10/07/92 21:16:06
 COLLECTION TIME : 32.86 DATE-TIME PROCESSED : 10/07/92 22:27:41
 METHOD: 26A / 26A REV #: 00003 ANALYST: LINDAD SAMP RATE: 1.56
 CLIENT ID: BTEX FB SAMPLE VOL: 5.0 ML
 CLIENT: LE CARPENTER COLUMN TYPE: DB624, PID
 LAB ID: 9209L010-002 RAW FILE: RAW2:J7240740
 SAMPLE WT : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC PPB	Recalculations
001	94419	2249	V	3.246			
002	167398	692		6.096			
003	12710	697	T	6.822	M 1,1-DICHLOROETHENE		
004	67706	890	T	8.557	M TRANS-1,2-DICHLOROET	0.257	
005	45690	951	T	9.521			
006	24410	967	T	9.847			
007	25555	963	T	10.428			
008	17677	951	T	10.828			
009	47213	1016	T	11.702	M CIS-1,2-DICHLOROETHE	0.417	
010	29984	991	T	12.168			
011	26854	955	T	12.580			
012	33645	842	T	13.350			
013	25216	753	T	14.015			
014	18470	636	T	14.408	M BENZENE	0.119	
015	21907	648	T	15.039			
016	23930	594	T	15.673			
017	4282	224	V	16.613	M TRICHLOROETHENE		
018	124262	18488	V	17.037	M aaa-TRIFLUOROTOLUENE	27.952	19.60
019	2406	166	V	17.548			
020	5453	176	V	18.222	M CIS-1,3-DICHLOROPROP	0.472	
				18.400	M 2-CHLOROETHYL VINYLET		
				18.730	M CIS-1,3-DICHLOROPROP		
021	7827	446	V	19.658	M TOLUENE	0.171	
022	4736	192	V	20.195	M TRANS-1,3-DICHLOROPR	0.344	
023	6931	387	V	21.099	M TETRACHLOROETHENE		All LD ✓
024	1382	124	V	21.534			
025	1952	184	V	22.041			
026	10368	164	V	23.411	M CHLOROBENZENE		
				23.790	M ETHYLBENZENE		
027	1510	274	V	24.138	M M+P-XYLENE		
028	7994	305	V	25.210	M O-XYLENE	0.084	
029	1990	148	V	25.911			
030	5344	179	V	27.260			
031	21722	1896	V	27.631			
032	2605	135	V	29.156			
				29.680	M 1,3-DICHLOROBENZENE		
033	2035	187		29.763	M 1,4-DICHLOROBENZENE		
				30.960	M 1,2-DICHLOROBENZENE		

1514 10/07/92

0000029

CLIENT SAMPLE NO.

GC VOLATILES SHEET

MW-25

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0200Client: LE CARPENTERMatrix: WATERLab Sample ID: 9209L010-003Sample wt/vol: 5.00 (g/mL) MLLab File ID: J6281137Level: (low/med) LOWDate Received: 09/24/92% Moisture: not dec. Date Analyzed: 10/06/92Column: (pack/cap) PACKDilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----	Benzene	1.0	u
100-41-4-----	Ethylbenzene	1.0	u
108-88-3-----	Toluene	1.0	u
1330-20-7-----	Xylene (total)	2.0	u

12/88 Rev.

9209L010-003

SAMPLE NO. : 10069220 .05

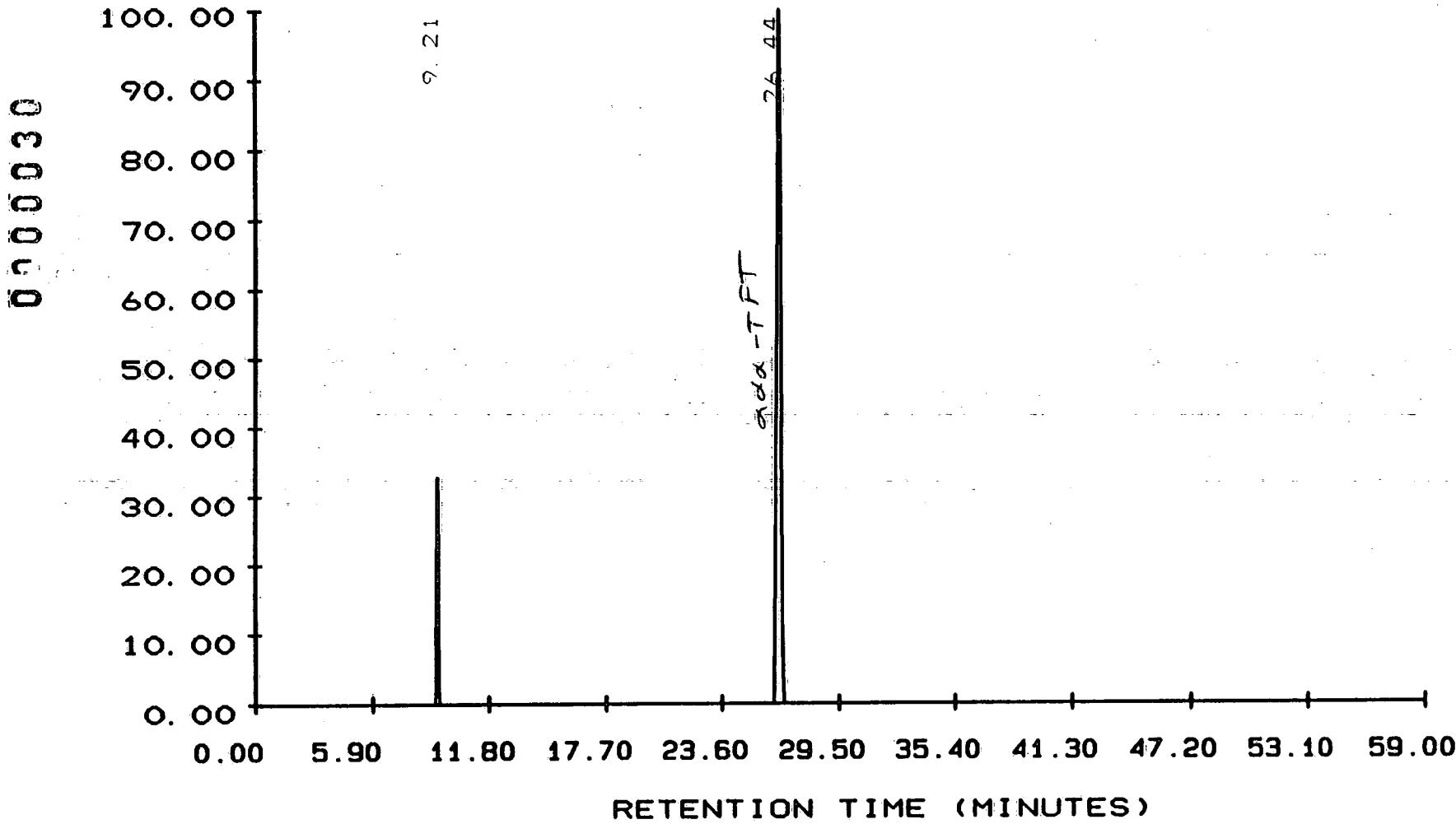
TEST NO. :

METHOD NO. : 20E / 20B

INSTRUMENT: 20

DATE TIME: 10/06/92 22:59:15

PAGE NO. : 01



Y MAXIMUM: 10696.

Y MINIMUM: 7108.

START TIME: 0.00

END TIME: 59.00

0000031

Roy F. Weston, Inc. - Lionville Laboratory

10/07/92 22:59:40

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10069220 .05 INST:20 VIAL:F0 SEQ NUMBER:005
 TEST : 0602X DATE-TIME INJECTED : 10/06/92 22:59:15
 COLLECTION TIME : 59.00 DATE-TIME PROCESSED : 10/07/92 22:59:40
 METHOD: 20E / 20E REV #: 00122 ANALYST: LINDAD SAMP RATE: 0.78
 CLIENT ID: MW-25 SAMPLE VOL: 5.0 ML
 CLIENT: LE CARPENTER COLUMN TYPE: 1% SP1000, PID
 LAB ID: 9209L010-003 RAW FILE: RAW2:J6281137
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR COMPONENT #	NAME	HEIGHT CONC PPB
001	72479	10912	9.207			
			11.390 M	1,1-DICHLOROETHENE		
			13.470 M	1,2-DICHLOROETHENE		
			19.550 M	TRICHLOROETHENE		
			20.180 M	BENZENE		
			21.530 M	2-CHLOROETHYL VINYLET		
			25.770 M	TETRACHLOROETHENE		
002	510362	35802	26.444 M	aaa-TRIFLUOROTOLUENE	47.680	19.90 vs (B3)
			27.530 M	TOLUENE		
			29.240 M	CHLOROBENZENE		
			32.840 M	ETHYLBENZENE		
			34.500 M	BROMOBENZENE		
			41.130 M	M - XYLENE		
			43.000 M	O - XYLENE		
			43.280 M	P - XYLENE		
			45.950 M	2-CHLOROTOLUENE		
			50.420 M	1,3-DICHLOROBENZENE		
			52.320 M	1,2-DICHLOROBENZENE		
			53.760 M	1,4-DICHLOROBENZENE		

By 10/10/

GC VOLATILES SHEET

MT 0000032 CLIENT SAMPLE NO.
11/3/92Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0200

MW-25CON

Client: LE CARPENTERMatrix: WATERLab Sample ID: 9209L010-003Sample wt/vol: 5.00 (g/mL) MLLab File ID: J7240754Level: (low/med) LOWDate Received: 09/24/92% Moisture: not dec. Date Analyzed: 10/07/92Column: (pack/cap) CAPDilution Factor: 1.00

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

71-43-2-----Benzene	NA	
100-41-4-----Ethylbenzene	NA	
108-88-3-----Toluene	NA	
1330-20-7-----Xylene (total)	NA	

12/88 Rev.

9209L010-003

SAMPLE NO. : 10079226 .07

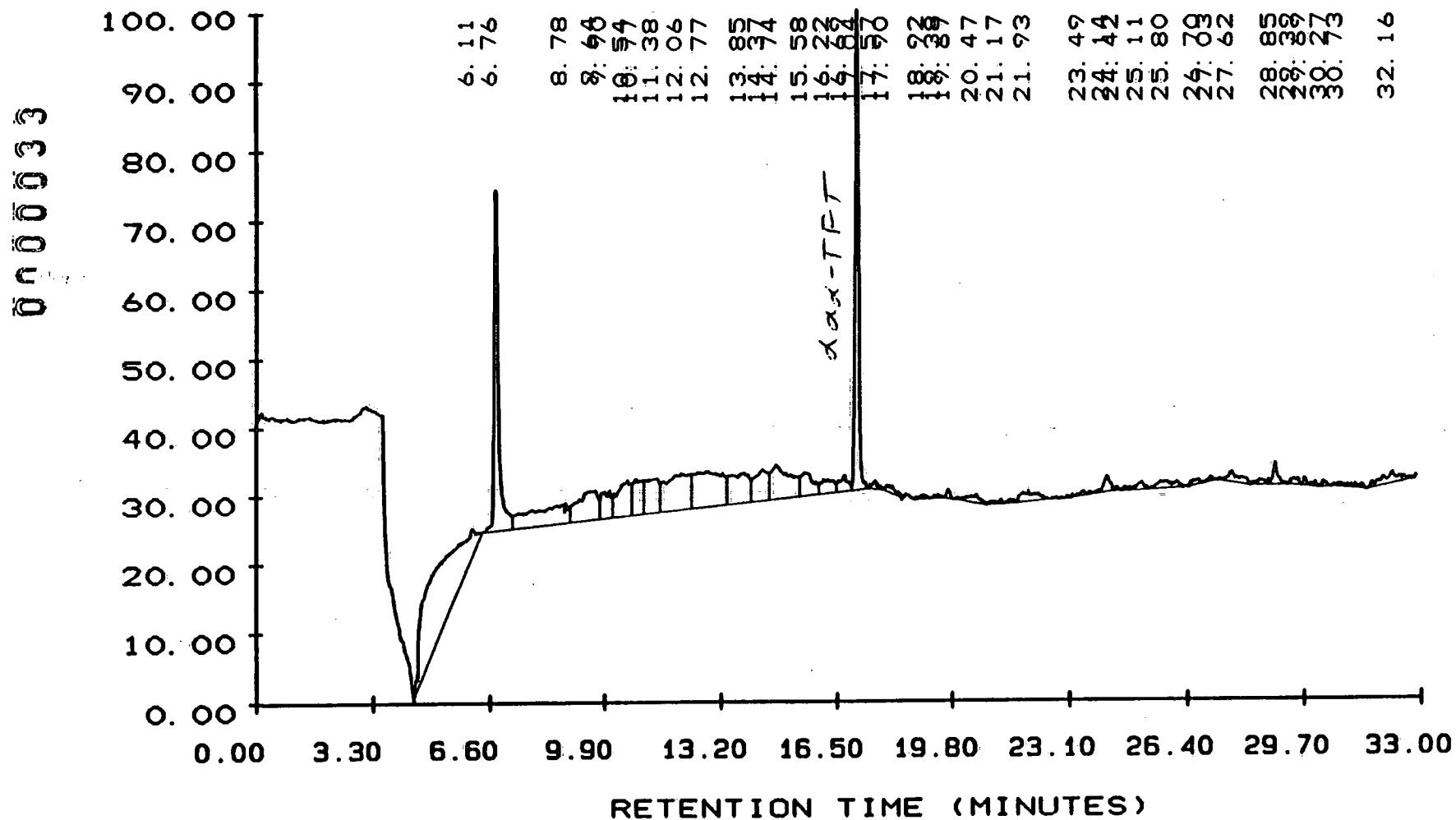
TEST NO. :

METHOD NO. : 26A / 26A

INSTRUMENT: 26

DATE TIME: 10/07/92 22:00:16

PAGE NO. : 01



Y MAXIMUM: 51148.

Y MINIMUM: 48516.

START TIME: 0.00

END TIME: 33.00

0000034

Roy F. Weston, Inc. - Lionville Laboratory

10/09/92 06:19:23

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10079226 .07 INST: 26 VIAL: F0 SEQ NUMBER: 007
 TEST : 0602X DATE-TIME INJECTED : 10/07/92 22:00:16
 COLLECTION TIME : 32.86 DATE-TIME PROCESSED : 10/09/92 06:19:23
 METHOD: 26A / 26A REV #: 00003 ANALYST: LINDAD SAMP RATE: 1.56
 CLIENT ID: MW-25 SAMPLE VOL: 5.0 ML
 CLIENT: LE CARPENTER COLUMN TYPE: DB624, PID
 LAB ID: 9209L010-003 RAW FILE: RAW2:J7240754
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES #	GR COMPONENT NAME	HEIGHT CONC PPB	Recalculation
001	214336	1014		6.114		
002	111366	12962	T	6.762 M 1,1-DICHLOROETHENE	24.470	Aacetone
003	60256	738	T	8.776 M TRANS-1,2-DICHLOROET	0.165	
004	46406	1122	T	9.636		
005	20416	1040	T	9.900		
006	35450	1335	T	10.540		
007	26195	1376	T	10.772		
008	35520	1298	T	11.377		
009	66342	1388	T	12.061 M CIS-1,2-DICHLOROETHE	0.791	
010	74778	1360	T	12.766		
011	43955	1138	T	13.850		
012	31475	1186	T	14.371 M BENZENE	0.386	
013	49600	1302	T	14.745		
014	21907	882	T	15.576		
015	13075	522	T	16.219 M TRICHLOROETHENE		
016	10010	629	T	16.692		
017	124858	18239	V	17.038 M aaa-TRIFLUOROTOLUENE	27.564	19.32
018	3885	321	V	17.570		
019	4902	252	V	17.905 M 2-CHLOROETHYL VINYLET	0.746	
020	2170	139	V	18.919 M CIS-1,3-DICHLOROPROP	0.402	
021	1043	126	V	19.383		
022	2426	340	V	19.666 M TOLUENE	0.123	
023	8141	320	V	20.472 M TRANS-1,3-DICHLOROPR	0.512	
024	2714	178	V	21.169 M TETRACHLOROETHENE		
025	13683	378	V	21.934		All LOV
				23.420 M CHLOROBENZENE		
026	2278	171	V	23.488 M ETHYLBENZENE	0.033	
027	8461	600	V	24.139 M M+P-XYLENE		
028	1171	145	V	24.418		
029	6778	310	V	25.108 M O-XYLENE	0.087	
030	9843	288	V	25.796		
031	2938	183	V	26.696		
032	2022	195	V	27.028		
033	10906	403	V	27.622		
034	12634	833	V	28.855		
035	3981	269	V	29.390		
				29.680 M 1,3-DICHLOROBENZENE		
036	3885	305	V	29.693 M 1,4-DICHLOROBENZENE		
037	1824	174	V	30.267		
038	5523	145	V	30.728 M 1,2-DICHLOROBENZENE	0.140	531 10/36/92

0000035
11/3/92

CLIENT SAMPLE NO.

GC VOLATILES SHEET

Lab Name: Roy F. Weston, Inc.06720-002-015-0200-00
Work Order: 6720-02-15-0200

MW-4

Client: LE CARPENTERMatrix: WATERLab Sample ID: 9209L010-004Sample wt/vol: 5.00 (g/mL) MLLab File ID: J7281224Level: (low/med) LOWDate Received: 09/24/92% Moisture: not dec. Date Analyzed: 10/07/92Column: (pack/cap) PACKDilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----	Benzene	1.0	U
100-41-4-----	Ethylbenzene	1.0	U
108-88-3-----	Toluene	2.0	N
1330-20-7-----	Xylene (total)	29	Y

12/88 Rev.

9209L010-004

SAMPLE NO. : 10069220 .08

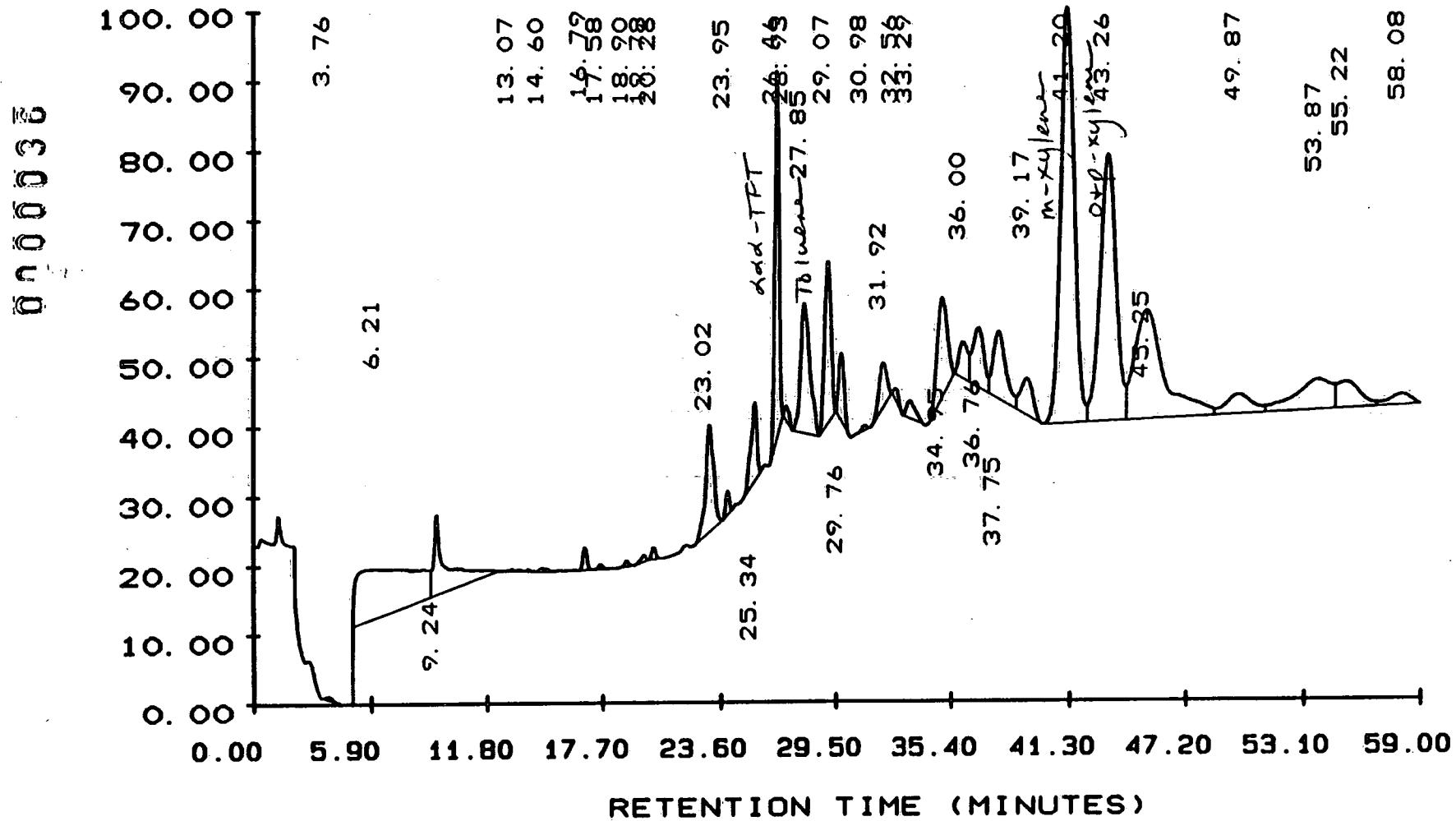
TEST NO. :

METHOD NO. : 20E / 20E

INSTRUMENT: 20

DATE TIME: 10/07/92 02:31:01

PAGE NO. : 01



Y MAXIMUM: 11080.

Y MINIMUM: 5925.

START TIME: 0.00

END TIME: 59.00

0000037

Roy F. Weston, Inc. - Lionville Laboratory

10/07/92 23:01:02

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10069220 .08

INST:20 VIAL:FO SEQ NUMBER:008

TEST : 0602X

DATE-TIME INJECTED : 10/07/92 02:31:01

COLLECTION TIME : 59.00

DATE-TIME PROCESSED : 10/07/92 23:01:02

METHOD: 20E / 20E REV #: 00122 ANALYST: LINDAD SAMP RATE: 0.78

CLIENT ID: MW-4

SAMPLE VOL: 5.0 ML

CLIENT: LE CARPENTER

COLUMN TYPE: 1% SP1000, PI

LAB ID: 9209L010-004

RAW FILE: RAW2:J7281224

SAMPLE WT :

% MOISTURE :

DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR COMPONENT	NAME	HEIGHT	CONC	PPB
001	6686	272		3.755					
002	733901	3650	T	6.207					
003	276966	5901		9.241					
				11.390	M	1,1-DICHLOROETHENE			
004	5542	133	V	13.066	M	1,2-DICHLOROETHENE			
005	6435	223	V	14.601					
006	23035	1651	V	16.787					
007	5234	341	V	17.581					
008	6520	408	V	18.901					
009	8992	487	V	19.784	M	TRICHLOROETHENE	0.198		
010	13030	871	V	20.258	M	BENZENE			
				21.530	M	2-CHLOROETHYL VINYLET			
011	215468	7873	V	23.020					
012	22608	1724	V	23.946					
013	119349	5696	V	25.335	M	TETRACHLOROETHENE	5.257		
014	405786	27159	V	26.458	M	aaa-TRIFLUOROTOLUENE	35.916	15.09	
015	17203	1055	V	26.928					
016	314023	9597	V	27.852	M	TOLUENE	4.710	1.96	> coelution plate
017	272342	12076	V	29.070	M	CHLOROBENZENE	7.060		
018	97429	5049	V	29.762					
019	7870	374	V	30.978					
020	92386	3242	V	31.923					
021	15753	908	V	32.560	M	ETHYLBENZENE	0.240	0.2 < reporting limit +	
022	41350	1315		33.292					
023	256209	7369	V	34.953	M	BROMOBENZENE	8.267		
024	82859	2719	T	36.002					
025	167776	4420	T	36.765					
026	214358	4999	T	37.754					
027	112836	2715	V	39.171					
028	1455707	30929	T	41.204	M	M - XYLENE	43.891	15.92	{
				43.000	M	O - XYLENE		12.71	}
029	1124001	19899	T	43.260	M	P - XYLENE	29.069		
030	839859	8084	T	45.253	M	2-CHLOROTOLUENE	17.740		
031	132422	1431	T	49.869	M	1,3-DICHLOROBENZENE	3.070		
				52.320	M	1,2-DICHLOROBENZENE			
032	286336	2229	T	53.865	M	1,4-DICHLOROBENZENE	5.738		
033	157415	1962	T	55.219					
034	63206	812		58.079					

6 pg 14/30/72

GC VOLATILES SHEET

000038 CLIENT SAMPLE NO.
11/3/92Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0200

MW-4CON

Client: LE CARPENTERMatrix: WATERLab Sample ID: 9209L010-004Sample wt/vol: 5.00 (g/mL) MLLab File ID: J8240801Level: (low/med) LOWDate Received: 09/24/92% Moisture: not dec. Date Analyzed: 10/08/92Column: (pack/cap) CAPDilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----Benzene	NA	
100-41-4-----Ethylbenzene	NA	
108-88-3-----Toluene	1.0	U.
1330-20-7-----Xylene (total)	17	

12/88 Rev.

9209L010-004

SAMPLE NO. : 10079226 . 10

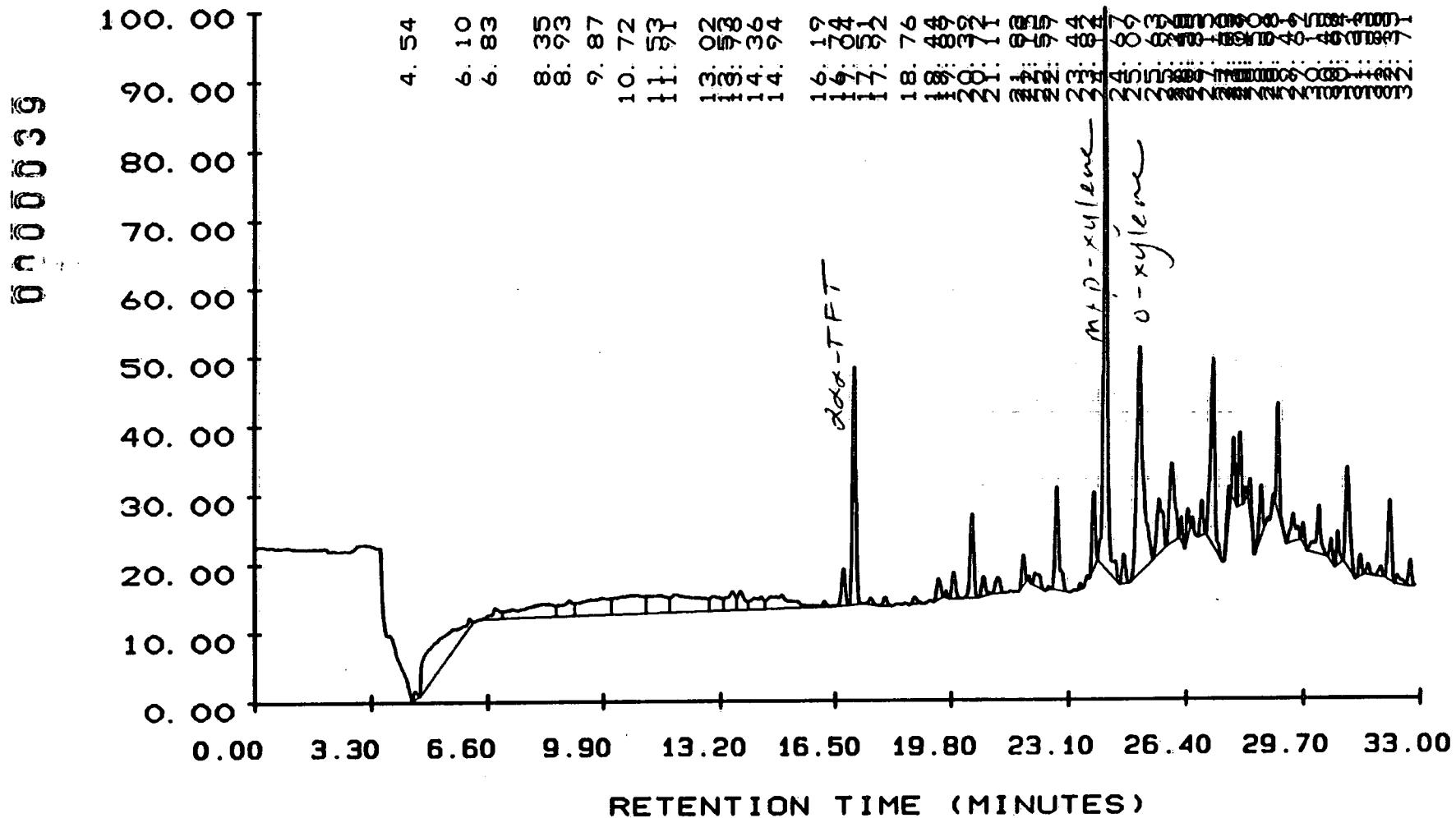
INSTRUMENT: 26

TEST NO. :

DATE TIME: 10/08/92 00:10:07

METHOD NO. : 26A / 26A

PAGE NO. : 01



Y MAXIMUM: 53415.
Y MINIMUM: 48501.

START TIME: 0.00
END TIME: 33.00

0000040

Roy F. Weston, Inc. - Lionville Laboratory

10/08/92 00:44:10

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10079226 .10 INST:26 VIAL:FO SEQ NUMBER:010
TEST : 0602X DATE-TIME INJECTED : 10/08/92 00:10:07
COLLECTION TIME : 32.86 DATE-TIME PROCESSED : 10/08/92 00:44:10
METHOD: 26A / 26A REV #: 00003 ANALYST: LINDAD SAMP RATE: 1.56
CLIENT ID: MW-4 SAMPLE VOL: 5.0 ML
CLIENT: LE CARPENTER COLUMN TYPE: DB624, PID
LAB ID: 9209L010-004 RAW FILE: RAW2:J8240801
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR NAME	COMPONENT	HEIGHT CONC PPB
001	3876	533	V	4.538			
002	142688	654		6.101			
003	13734	764	T	6.833	M	1,1-DICHLOROETHENE	
004	67725	939	T	8.352			
005	27981	1129	T	8.927	M	TRANS-1,2-DICHLOROET	0.402
006	67962	1215	T	9.866			
007	73056	1328	T	10.724			
008	47885	1283	T	11.531			
009	71213	1305	T	11.912	M	CIS-1,2-DICHLOROETHE	0.707
010	23341	1056	T	13.020			
011	23354	1348	T	13.534			
012	18298	1348	T	13.760			
013	21146	880	T	14.360	M	BENZENE	0.237
014	46643	966	T	14.945			
015	3526	397	V	16.187	M	TRICHLOROETHENE	
016	20397	2643	V	16.736			
017	111123	16829	V	17.036	M	aaa-TRIFLUOROTOLUENE	25.366
018	3654	464	V	17.510			
019	4986	620	V	17.920			
				18.400	M	2-CHLOROETHYLVINYLET	
020	4902	516	V	18.760	M	CIS-1,3-DICHLOROPROP	1.109
021	11859	1490	V	19.439			
022	2276	496	V	19.660	M	TOLUENE	0.194
023	13728	1881	V	19.870			
024	41805	5928	V	20.390	M	TRANS-1,3-DICHLOROPR	7.852
025	10394	1412	V	20.718			
026	10656	1150	V	21.114	M	TETRACHLOROETHENE	0.304
027	13376	2124	V	21.831			
028	1843	503	V	21.986			
029	12371	968	V	22.153			
030	1446	287	V	22.548			
031	57440	7272	V	22.771			
032	2187	447	V	23.442	M	CHLOROBENZENE	
033	33241	5277	V	23.819	M	ETHYLBENZENE	2.555
034	275290	39656	V	24.138	M	M+P-XYLENE	15.913
035	13632	2086	V	24.669			
036	187117	15978	V	25.092	M	O-XYLENE	7.571
037	42195	3838	V	25.631			
038	57747	5625	V	25.992			
039	7684	1807	V	26.265			

B37 10/30/92

SAMPLE: 10079226 .10

PAGE NUMBER: 2

DATE-TIME INJECTED : 10/08/92 00:10:07

DATE-TIME PROCESSED : 10/08/92 00:44:10

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR COMPONENT	NAME	HEIGHT CONC PPB
040	9739	1848	V	26.449			
041	3162	854	V	26.576			
042	14784	2478	V	26.845			
043	108390	13235	V	27.153			
044	10995	2042	V	27.605			
045	22398	4446	V	27.734			
046	27686	5164	V	27.918			
047	3484	923	V	28.069			
048	12734	2586	V	28.187			
049	22643	3527	V	28.498			
050	3489	766	V	28.844			
051	41837	7686	V	28.975			
052	22387	1974	V	29.413			
053	6642	1425	V	29.693	M 1,3-DICHLOROBENZENE		0.255
054	31386	3382	V	30.145	M 1,4-DICHLOROBENZENE		1.336
055	9655	1631	V	30.495			
056	12874	2378	V	30.679			
057	56851	7000	V	30.940	M 1,2-DICHLOROBENZENE		4.344
058	8870	1494	V	31.313			
059	4557	740	V	31.532			
060	4998	737	V	31.879			
061	41350	5722	V	32.131			
062	6886	682	V	32.348			
063	10838	1828		32.705			

06720-002-015-0200-00 4 CLIENT SAMPLE NO.
011739

GC VOLATILES SHEET

06720-002-015-0200-00

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0200

MW-14S

Client: LE CARPENTERMatrix: WATERLab Sample ID: 9209L010-005Sample wt/vol: 5.00 (g/mL) MLLab File ID: J7281258Level: (low/med) LOWDate Received: 09/24/92% Moisture: not dec. Date Analyzed: 10/07/92Column: (pack/cap) PACKDilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----	Benzene	1.0	U
100-41-4-----	Ethylbenzene	1.0	U
108-88-3-----	Toluene	1.0	U
1330-20-7-----	Xylene (total)	2.0	U

12/88 Rev.

9209L010-005

SAMPLE NO. : 10069220 .09

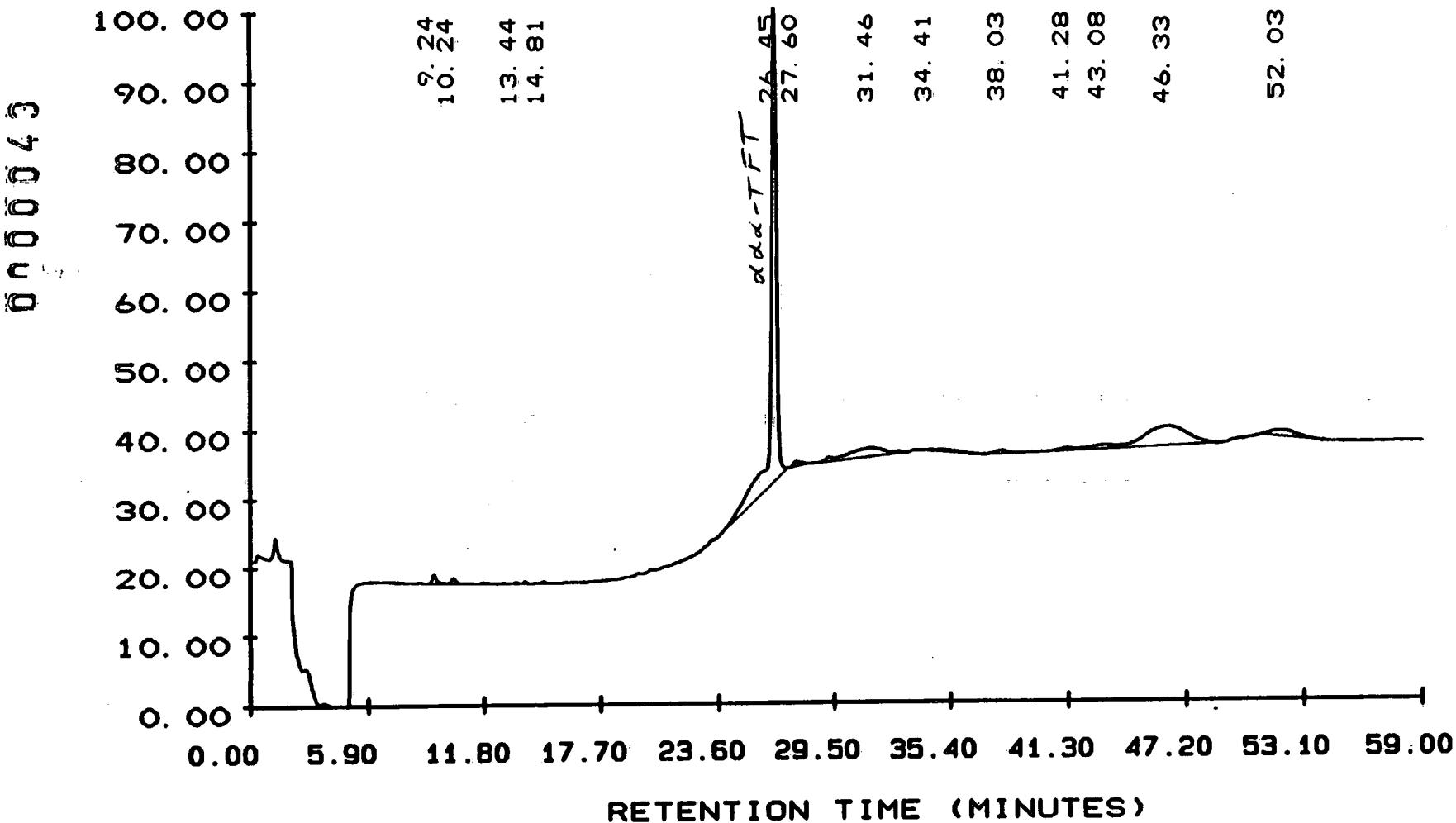
TEST NO. :

METHOD NO. : 20E / 20E

INSTRUMENT: 20

DATE TIME: 10/07/92 03:41:35

PAGE NO. : 01



Y MAXIMUM: 11410.

Y MINIMUM: 5960.

START TIME: 0.00

END TIME: 59.00

0000044

Roy F. Weston, Inc. - Lionville Laboratory

10/07/92 23:01:29

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10069220 .09

INST:20 VIAL:F0 SEQ NUMBER:009

TEST : O602X

DATE-TIME INJECTED : 10/07/92 03:41:35

COLLECTION TIME : 59.00

DATE-TIME PROCESSED : 10/07/92 23:01:29

METHOD: 20E / 20E REV #: 00122 ANALYST: LINDAD SAMP RATE: 0.78

CLIENT ID: MW-14S

SAMPLE VOL: 5.0 ML

CLIENT: LE CARPENTER

COLUMN TYPE: 1% SP1000, PI

LAB ID: 9209L010-005

RAW FILE: RAW2:J7281258

SAMPLE WT :

% MOISTURE :

DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC PPB
001	11322	678	T	9.245		
002	8418	439	V	10.237		
					11.390 M 1,1-DICHLOROETHENE	
004	4521	139	V	13.442	M 1,2-DICHLOROETHENE	
005	3101	163		14.805		
					19.550 M TRICHLOROETHENE	<i>SP. VS BS</i>
					20.180 M BENZENE	
					21.530 M 2-CHLOROETHYL VINYLET	
					25.770 M TETRACHLOROETHENE	
006	759450	36981	V	26.450	M aaa-TRIFLUOROTOLUENE	49.284
007	10707	365	V	27.605	M TOLUENE	
					29.240 M CHLOROBENZENE	
- 008	94707	647		31.463		
					32.840 M ETHYLBENZENE	
009	14302	113		34.407	M BROMOBENZENE	0.713
010	11998	278	V	38.033		
011	15139	228	T	41.283	M M - XYLENE	
					43.000 M O - XYLENE	
012	24759	322	T	43.080	M P - XYLENE	0.134
013	225216	1527		46.331	M 2-CHLOROTOLUENE	3.846
					50.420 M 1,3-DICHLOROBENZENE	
014	46566	523		52.032	M 1,2-DICHLOROBENZENE	1.009
					53.760 M 1,4-DICHLOROBENZENE	

*20.55**< reporting
lim. to**10/30/92
RJ*

GC VOLATILES SHEET

1000045 CLIENT SAMPLE NO.
11/3/92

06720-002-015-0200-00

MW-14SCON

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0200Client: LE CARPENTERMatrix: WATERLab Sample ID: 9209L010-005Sample wt/vol: 5.00 (g/mL) MLLab File ID: J8240819Level: (low/med) LOWDate Received: 09/24/92% Moisture: not dec. Date Analyzed: 10/08/92Column: (pack/cap) CAPDilution Factor: 1.00

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

71-43-2-----Benzene	NA	
100-41-4-----Ethylbenzene	NA	
108-88-3-----Toluene	NA	
1330-20-7-----Xylene (total)	NA	

12/88 Rev.

9209L010-005

SAMPLE NO. : 10079226

. 11

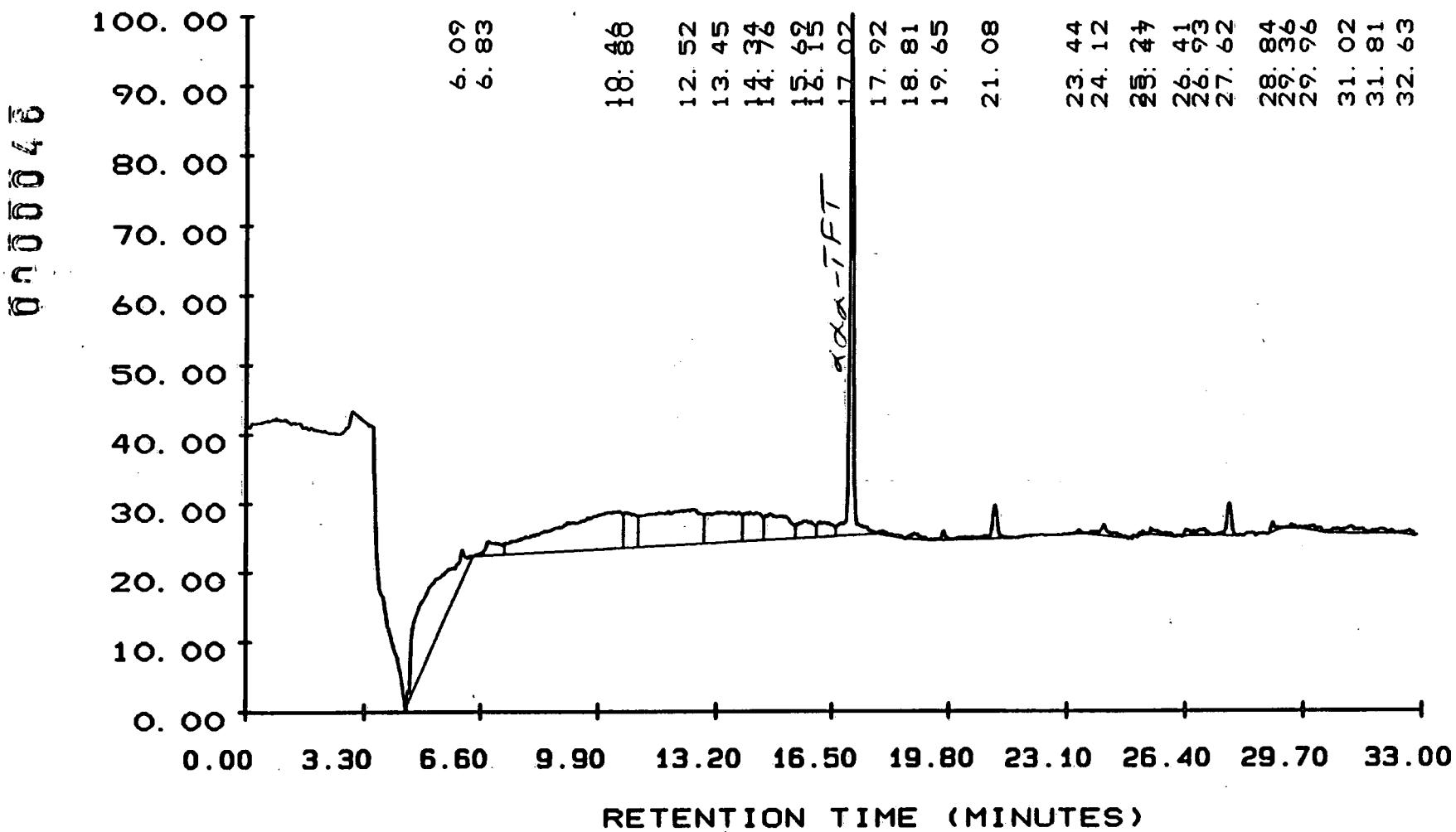
INSTRUMENT: 26

TEST NO. :

DATE TIME: 10/08/92 01:02:20

METHOD NO. : 26A / 26A

PAGE NO.: 01



000047

Roy F. Weston, Inc. - Lionville Laboratory

10/08/92 01:36:03

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10079226 .11
 TEST : 0602X
 COLLECTION TIME : 32.86
 METHOD: 26A / 26A REV #: 00003 ANALYST: LINDAD SAMP RATE: 1.56
 CLIENT ID: MW-14S SAMPLE VOL: 5.0 ML
 CLIENT: LE CARPENTER COLUMN TYPE: DB624, PID
 LAB ID: 9209L010-005 RAW FILE: RAW2:J8240819
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC PPB	Recalculations
001	192474	1134			6.094		
002	15232	524	T		6.834 M 1,1-DICHLOROETHENE		
					8.900 M TRANS-1,2-DICHLOROET		
003	192941	1437	T		10.456		
004	33037	1330	T		10.797		
					11.880 M CIS-1,2-DICHLOROETHE		
005	138170	1354	T		12.525		
006	72352	1161	T		13.452		
007	38106	1072	T		14.344 M BENZENE	0.331	
008	44045	994	T		14.755		
009	20173	656	T		15.687		
010	16019	581	T		16.153 M TRICHLOROETHENE		
011	152838	19915	V		17.021 M aaa-TRIFLUOROTOLUENE	30.177	21.19
012	3866	157	V		17.920		
					18.400 M 2-CHLOROETHYLVINYLET		
013	4653	208	V		18.814 M CIS-1,3-DICHLOROPROP	0.531	
					19.640 M TOLUENE		
014	2918	324	V		19.651 M TRANS-1,3-DICHLOROPR	0.517	
015	16896	1309	V		21.081 M TETRACHLOROETHENE	0.454	
016	1235	162	V		23.437 M CHLOROBENZENE		All LDV
					23.790 M ETHYLBENZENE		
017	8762	431	V		24.122 M M+P-XYLENE		
018	1792	159	V		25.213 M O-XYLENE	0.015	
019	4595	176	V		25.467		
020	2349	256	V		26.410		
021	4627	238	V		26.929		
022	12282	1262	V		27.616		
023	3347	379	V		28.840		
024	1869	157	V		29.359		
					29.680 M 1,3-DICHLOROBENZENE		
025	4813	198	V		29.958 M 1,4-DICHLOROBENZENE		
026	10189	259	V		31.019 M 1,2-DICHLOROBENZENE	0.210	
027	4979	177	V		31.806		
028	2714	182	V		32.631		

610 10/30/92

GC VOLATILES SHEET

01/16/92 48 CLIENT SAMPLE NO.

06720-002-015-0700-00

MW-22

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0200Client: LE CARPENTERMatrix: WATERLab Sample ID: 9209L010-006Sample wt/vol: 5.00 (g/mL) MLLab File ID: J7281288Level: (low/med) LOWDate Received: 09/24/92% Moisture: not dec. Date Analyzed: 10/07/92Column: (pack/cap) PACKDilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

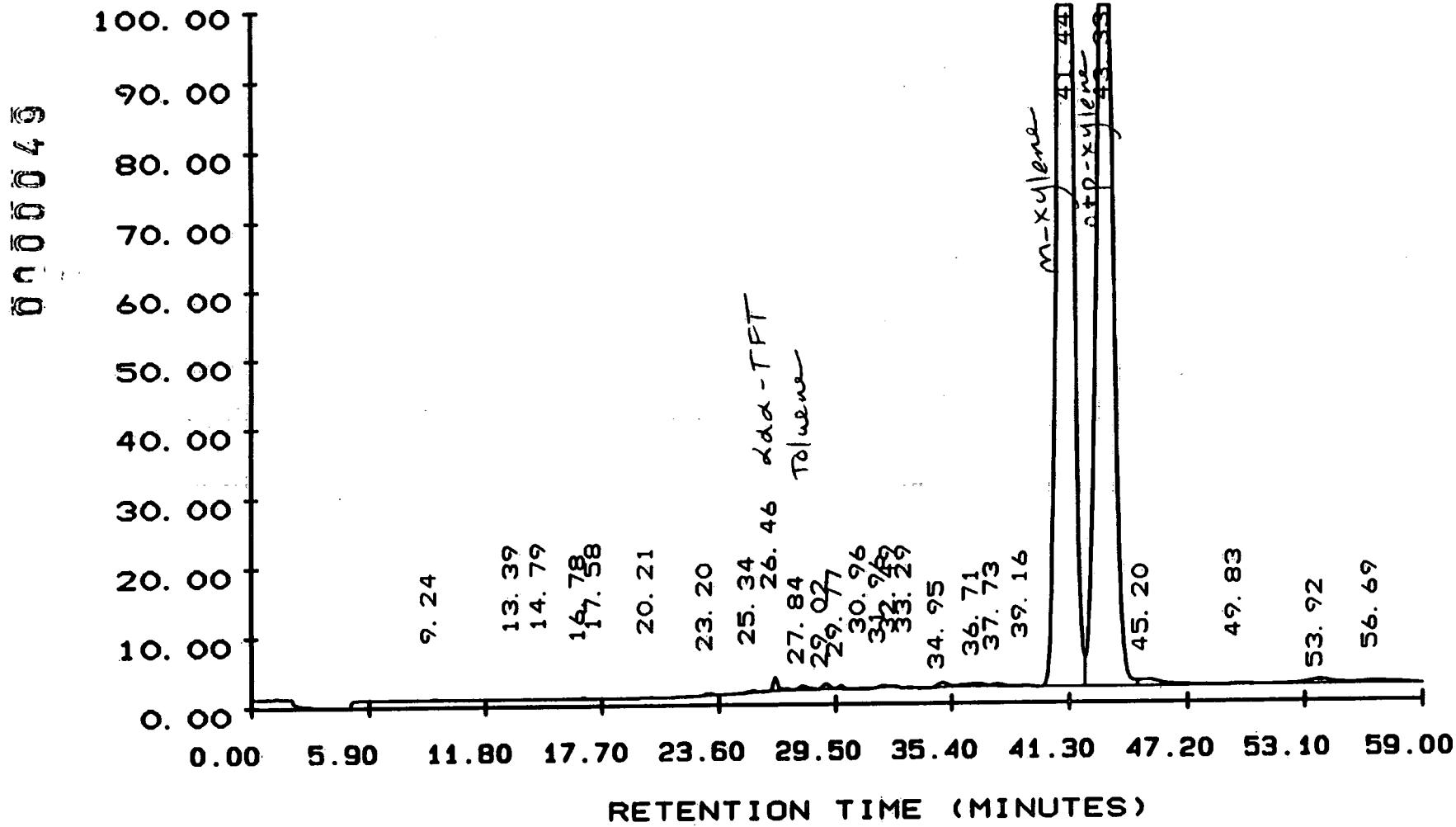
71-43-2-----Benzene	1.0	U
100-41-4-----Ethylbenzene	1.0	U
108-88-3-----Toluene	1.0	U
1330-20-7-----Xylene (total)		E

12/88 Rev.

9209L010-006

SAMPLE NO. : 10069220 . 10
TEST NO. :
METHOD NO. : 20E / 20E

INSTRUMENT: 20
DATE TIME: 10/07/92 04:52:13
PAGE NO. : 01



Y MAXIMUM: 97313.
Y MINIMUM: 6002.

START TIME: 0.00
END TIME: 59.00

000050

Roy F. Weston, Inc. - Lionville Laboratory

10/07/92 23:01:45

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10069220 .10

INST:20 VIAL:FO SEQ NUMBER:010

TEST : 0602X

DATE-TIME INJECTED : 10/07/92 04:52:13

COLLECTION TIME : 59.00

DATE-TIME PROCESSED : 10/07/92 23:01:45

METHOD: 20E / 20E REV #: 00122

ANALYST: LINDAD SAMP RATE: 0.78

CLIENT ID: MW-22

SAMPLE VOL: 5.0 ML

CLIENT: LE CARPENTER

COLUMN TYPE: 1% SP1000, PI

LAB ID: 9209L010-006

RAW FILE: RAW2:J7281288

SAMPLE WT :

% MOISTURE :

DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT	CONC PPB
001	28138	1541	V	9.243			
					11.390 M 1,1-DICHLOROETHENE		
003	11330	395	V	13.387	M 1,2-DICHLOROETHENE		
004	3542	171	V	14.789			
005	23891	1712	V	16.783			
006	3904	234	V	17.582			
					19.550 M TRICHLOROETHENE		
007	9224	658	V	20.207	M BENZENE		
					21.530 M 2-CHLOROETHYL VINYLET		
008	89258	2985	V	23.204			
009	50130	2199	V	25.338	M TETRACHLOROETHENE	1.832	
010	328587	17117	V	26.457	M aaa-TRIFLUOROTOLUENE	22.249	
011	151793	4781	V	27.840	M TOLUENE	2.002	9.51
012	158586	6692	V	29.016	M CHLOROBENZENE	3.738	0.977
013	78831	3953	V	29.773			
014	18326	872	V	30.960			
015	57756	2181	V	31.957			
016	16462	857	V	32.495	M ETHYLBENZENE	0.188	<DL
017	24302	855		33.287			
018	196720	5655	V	34.946	M BROMOBENZENE	6.482	N/A
019	231041	3956	T	36.708			
020	139862	3224	T	37.727			
021	69558	1723	V	39.163			
022	58570368	893237	T	41.441	M M - XYLENE	460 1.287E+3	E
					43.000 M O - XYLENE		{ 1030 260 10/30/92
023	57847920	893105	T	43.328	M P - XYLENE	570 1.320E+3	E } 18.446
024	851622	8417	T	45.201	M 2-CHLOROTOLUENE		
025	154583	1785	T	49.829	M 1,3-DICHLOROBENZENE	3.899	
					52.320 M 1,2-DICHLOROBENZENE		
026	636378	5847	T	53.923	M 1,4-DICHLOROBENZENE	15.536	
027	419802	3442		56.688			

GC VOLATILES SHEET

000005
11/3/92 CLIENT SAMPLE NO.Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0200

MW-22CON

Client: LE CARPENTERMatrix: WATERLab Sample ID: 9209L010-006Sample wt/vol: 5.00 (g/mL) MLLab File ID: J8240836Level: (low/med) LOWDate Received: 09/24/92% Moisture: not dec. Date Analyzed: 10/08/92Column: (pack/cap) CAPDilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----	Benzene	NA	
100-41-4-----	Ethylbenzene	NA	
108-88-3-----	Toluene	NA	
1330-20-7-----	Xylene (total)	E	

12/88 Rev.

9209L010-006

SAMPLE NO. : 10079226

.12

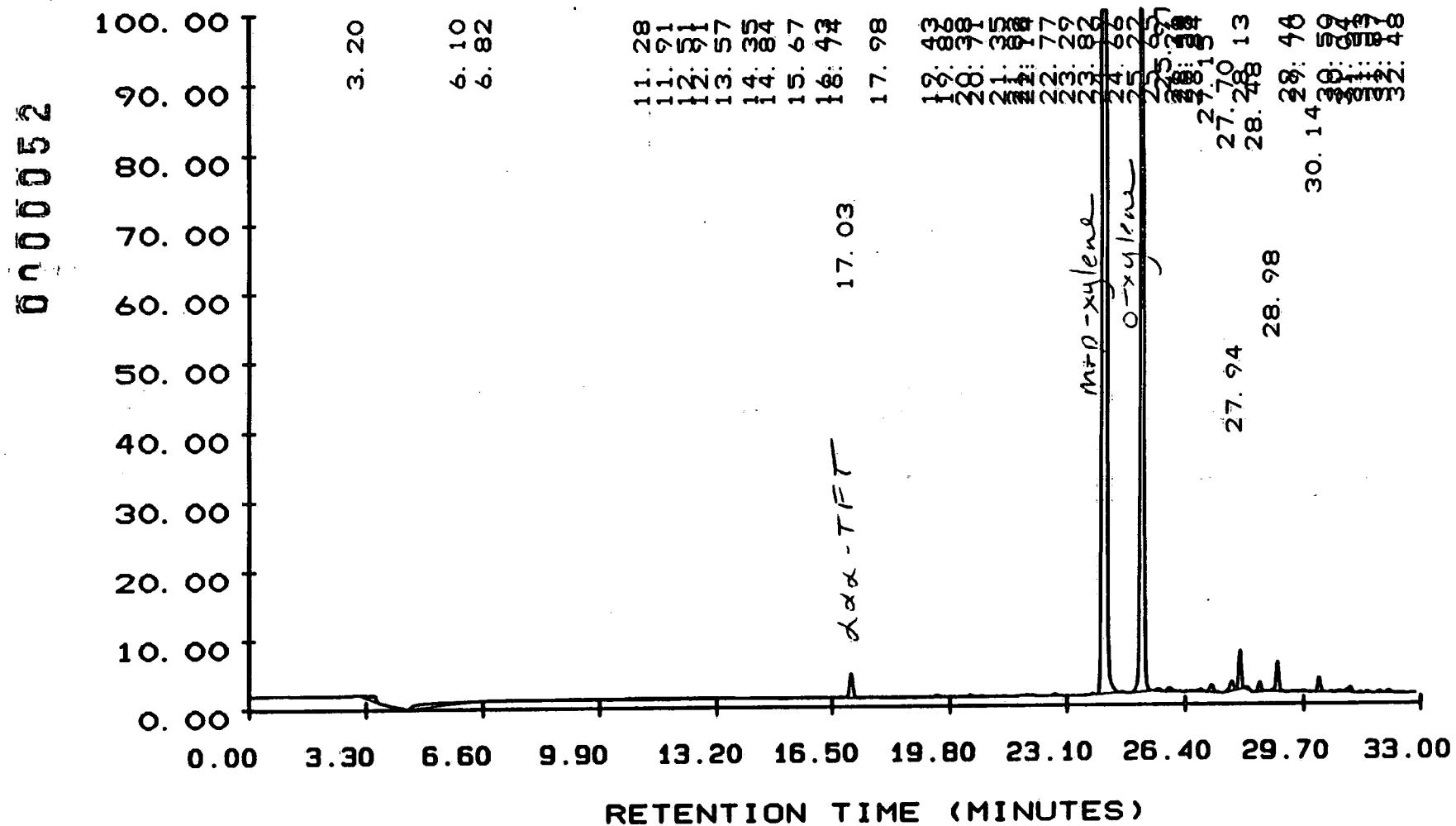
INSTRUMENT: 26

TEST NO. :

DATE TIME: 10/08/92 01:54:20

METHOD NO. : 26A / 26A

PAGE NO. : 01



Y MAXIMUM: 102452.
Y MINIMUM: 48455.

START TIME: 0.00
END TIME: 33.00

0000054

PAGE NUMBER: 2

SAMPLE: 10079226 .12
DATE-TIME INJECTED : 10/08/92 01:54:20
DATE-TIME PROCESSED : 10/08/92 02:28:12

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT	CONC	PPB

040	13860	2402	V	28.134					
041	53331	7837	V	28.482					
042	139552	22435	V	28.975					
043	6349	605	V	29.436					
044	7814	1030	V	29.701 M 1,3-DICHLOROBENZENE			0.063		
045	68147	11188	V	30.144 M 1,4-DICHLOROBENZENE			5.195		
046	4442	923	V	30.496					
047	9011	976	V	30.768					
048	35962	4398	V	31.036 M 1,2-DICHLOROBENZENE			2.748		
049	5987	991	V	31.311					
050	8909	1373	V	31.529					
051	13037	1589	V	31.873					
052	15053	2160	V	32.110					
053	4608	361		32.484					

GC VOLATILES SHEET

0000055 CLIENT SAMPLE NO.

11/3/92

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0200

MW-22DLCON

Client: LE CARPENTERMatrix: WATER Lab Sample ID: 9209L010-006 DLSample wt/vol: 5.00 (g/mL) ML Lab File ID: J7240691Level: (low/med) LOW Date Received: 09/24/92% Moisture: not dec. Date Analyzed: 10/07/92Column: (pack/cap) CAP Dilution Factor: 10.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

71-43-2-----Benzene	NA	
100-41-4-----Ethylbenzene	NA	
108-88-3-----Toluene	NA	
1330-20-7-----Xylene (total)	1500	

12/88 Rev.

9209L010-006

SAMPLE NO.: 10079226 .03

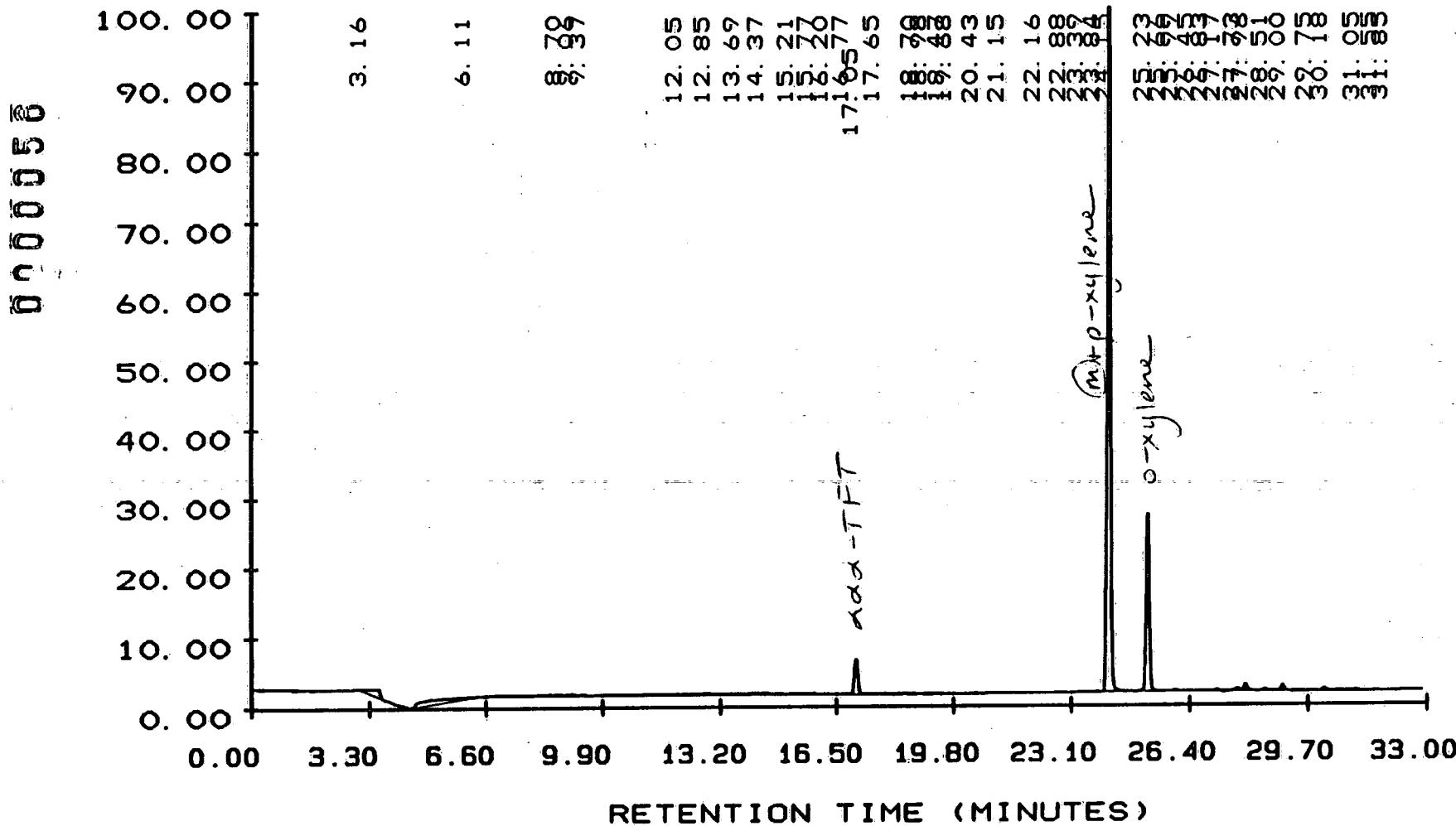
TEST NO.:

METHOD NO.: 26A / 26A

INSTRUMENT: 26

DATE TIME: 10/07/92 19:02:41

PAGE NO.: 01



Y MAXIMUM: 87065.

Y MINIMUM: 48588.

START TIME: 0.00

END TIME: 33.00

000057

Roy F. Weston, Inc. - Lionville Laboratory

10/07/92 22:26:15

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10079226 .03
 TEST : 0602X
 COLLECTION TIME : 32.86
 METHOD: 26A / 26A REV #: 00003 ANALYST: LINDAD SAMP RATE: 1.56
 CLIENT ID: MW-22 SAMPLE VOL: 5.0 ML
 CLIENT: LE CARPENTER COLUMN TYPE: DB624, PID
 LAB ID: 9209L010-006 RAW FILE: RAW2:J7240691
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 10.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC PPB	Recalculation
001	87341	1368	V	3.158			
002	201536	882		6.115			
				6.550 M	1,1-DICHLOROETHENE		
003	73030	816	T	8.696			
004	18784	999	T	9.055 M	TRANS-1,2-DICHLOROET	3.232	
005	10413	814	T	9.370			
006	98451	826	T	12.052 M	CIS-1,2-DICHLOROETHE	2.265	
007	40550	847	T	12.850			
008	30989	780	T	13.686			
009	43834	900	T	14.367 M	BENZENE	2.470	< DL
010	6400	516	T	15.208			
011	21696	608	T	15.773			
012	6336	306	V	16.197 M	TRICHLOROETHENE		
013	2605	272	T	16.769			
014	127898	18867	V	17.049 M	aaa-TRIFLUOROTOLUENE	285.429	20.02
015	6605	265	V	17.645			
				18.400 M	2-CHLOROETHYLVINYLET		
016	3469	209	V	18.704 M	CIS-1,3-DICHLOROPROP	5.334	
017	3635	244	V	18.981			
018	1485	207	V	19.466			
019	1824	198	V	19.677 M	TOLUENE	0.587	< DL
020	2291	211	V	20.429 M	TRANS-1,3-DICHLOROPR	3.689	
021	4166	186	V	21.155 M	TETRACHLOROETHENE		
022	7443	240	V	22.165			
023	3910	283	V	22.882			
024	3635	280	V	23.386 M	CHLOROBENZENE		
025	3149	383	V	23.842 M	ETHYLBENZENE	1.374	N/A < DL
026	2185593	373446	V	24.153 M	M+P-XYLENE	1.578E+3	1141.8
027	560314	96579	V	25.230 M	O-XYLENE	460.746	323.2
028	2208	226	V	25.659			
029	7859	676	V	25.992			
030	1498	155	V	26.452			
031	2253	220	V	26.829			
032	7155	777	V	27.171			
033	10413	1186	V	27.728			
034	24614	3621	V	27.965			
035	7834	1094	V	28.508			
036	21370	3071	V	29.004			
				29.680 M	1,3-DICHLOROBENZENE		
037	3424	234	V	29.746 M	1,4-DICHLOROBENZENE		

F50 10/30/92

000058

SAMPLE: 10079226 .03

PAGE NUMBER: 2

DATE-TIME INJECTED : 10/07/92 19:02:41

DATE-TIME PROCESSED : 10/07/92 22:26:15

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR COMPONENT	NAME	HEIGHT CONC PPB
038	13779	1448	V	30.176			
039	5254	547	V	31.054	M	1,2-DICHLOROBENZENE	3.865
040	3309	266	V	31.553			
041	1600	159		31.845			

000059

WESTON

STANDARD DATA

Used for
single point calculation

92LV5140-MB1S

SAMPLE NO. : 10069220 .02

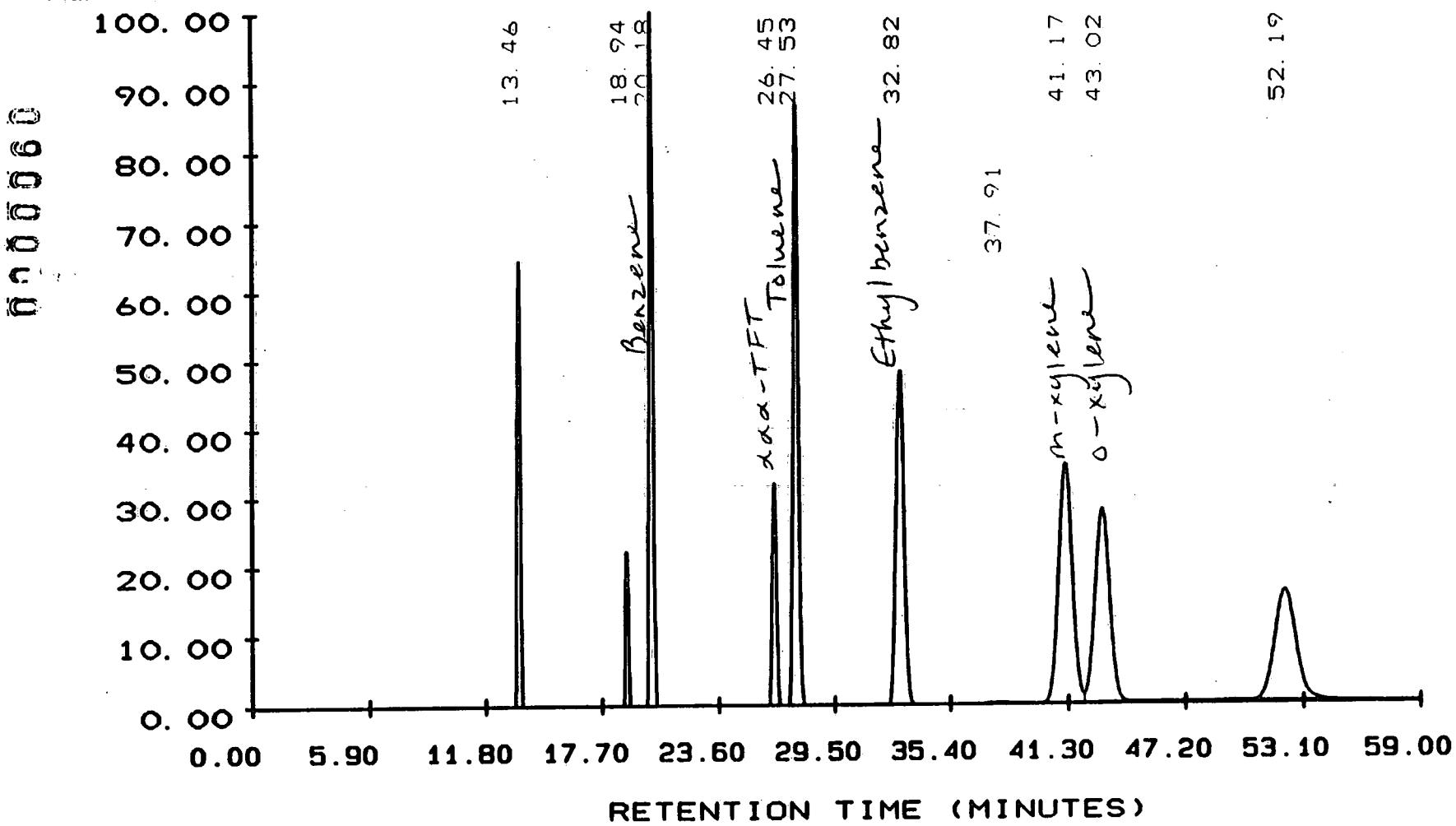
TEST NO. :

METHOD NO. : 20E / 20B

INSTRUMENT: 20

DATE TIME: 10/06/92 19:27:37

PAGE NO. : 01



Y MAXIMUM: 18437.

Y MINIMUM: 7108.

START TIME: 0.00

END TIME: 59.00

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Roy F. Weston, Inc. - Lionville Laboratory

10/06/92 23:39:27

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10069220 .02 INST:20 VIAL:F0 SEQ NUMBER:002
TEST : DATE-TIME INJECTED : 10/06/92 19:27:37
COLLECTION TIME : 59.00 DATE-TIME PROCESSED : 10/06/92 23:39:27
METHOD: 20E / 20B REV #: 00122 ANALYST: LINDAD SAMP RATE: 0.78
CLIENT ID: SAMPLE VOL: 5.0 ML
CLIENT: COLUMN TYPE: 1% SP1000, PI
LAB ID: 92LV5140-MB1MS RAW FILE: RAW2:J6281050
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR NAME	COMPONENT	HEIGHT CONC PPB
001	811392	72561		13.457	M	1,2-DICHLOROETHENE	46.925
002	255462	24780	T	18.937			
003	1492557	112761		20.176	M	BENZENE	49.796
004	530522	35987	V	26.445	M	aaa-TRIFLUOROTOLUENE	47.931
005	1680065	97887		27.530	M	TOLUENE	54.356
006	1535565	54393		32.818	M	ETHYLBENZENE	55.063
007	17513	248		37.906			
008	1822573	38843	T	41.173	M	M - XYLENE	55.303
009	1614043	31318		43.021	M	O - XYLENE	56.117
010	1328475	17796		52.193	M	1,2-DICHLOROBENZENE	57.077

0700062

Roy F. Weston, Inc. - Lionville Laboratory

METHOD NUMBER	:	20B
METHOD TITLE	:	5.0 ML, 1% SP1000,
USER PROGRAMS	:	USER: MULTIV10
ORDER OF FIT	:	1
NUMBER OF LEVELS	:	10
REPORT PARAMETERS	:	
NO.OF TIMES MODIFIED	:	11
NO.OF TIMES CALIBRAT	:	65

#	COMPONENT NAME	LEVEL A LEVEL F	LEVEL B LEVEL G	LEVEL C LEVEL H	LEVEL D LEVEL I	LEVEL E LEVEL J
1	1,2-DICHLOROETHENE	0.5000 20.0000	1.0000 40.0000	2.0000 50.0000	5.0000 60.0000	10.0000 80.0000
2	BENZENE	0.5000 20.0000	1.0000 40.0000	2.0000 50.0000	5.0000 60.0000	10.0000 80.0000
3	aaa-TRIFLUOROTOLUENE	0.5000 20.0000	1.0000 40.0000	2.0000 50.0000	5.0000 60.0000	10.0000 80.0000
4	TOLUENE	0.5000 20.0000	1.0000 40.0000	2.0000 50.0000	5.0000 60.0000	10.0000 80.0000
5	ETHYLBENZENE	0.5000 20.0000	1.0000 40.0000	2.0000 50.0000	5.0000 60.0000	10.0000 80.0000
6	M - XYLENE	0.4992 19.9680	0.9984 39.9360	1.9968 49.9200	4.9920 59.9040	9.9840 79.8720
7	O - XYLENE	0.5050 20.2000	1.0100 40.4000	2.0200 50.5000	5.0500 60.6000	10.1000 80.8000
8	1,2-DICHLOROBENZENE	0.5042 20.1700	1.0085 40.3400	2.0170 50.4250	5.0425 60.5100	10.0850 80.6800

000063

MULTILEVEL CALIBRATION METHOD 20B 09/24/92 10:49:06
 1ST ORDER EXTERNAL STANDARD CALIBRATION USING PEAK HEIGHT

TEST:

LEVEL	REPLICATE 1	REPLICATE 2	REPLICATE 3
-------	-------------	-------------	-------------

A	09119220.04
B	09119220.05
C	09119220.06
D	09119220.07
E	09119220.08
F	09119220.09
G	09119220.10
H	
I	09119220.19
J	

PEAK NAME	COEFFICIENTS			SD OF FIT	CORR COEFF
	a	b	c		
1,2-DICHLOROETHENE		6.527E-04-4.356E-01		1.19249	0.99743
BENZENE		4.466E-04-5.633E-01		1.26144	0.99713
aaa-TRIFLUOROTOLUENE		1.361E-03-1.047E+00		1.0185	0.99813
TOLUENE		5.623E-04-6.861E-01		1.33567	0.99678
ETHYLBENZENE		1.025E-03-6.903E-01		1.31658	0.99687
M - XYLENE		1.442E-03-7.087E-01		1.37117	0.99660
O - XYLENE		1.816E-03-7.564E-01		1.40919	0.99649
1,2-DICHLOROBENZENE		3.246E-03-6.887E-01		1.41847	0.99643

SAMPLE NO.: 09119220

TEST NO.:

METHOD NO.: 20 / 20E

STD B . 5PPB

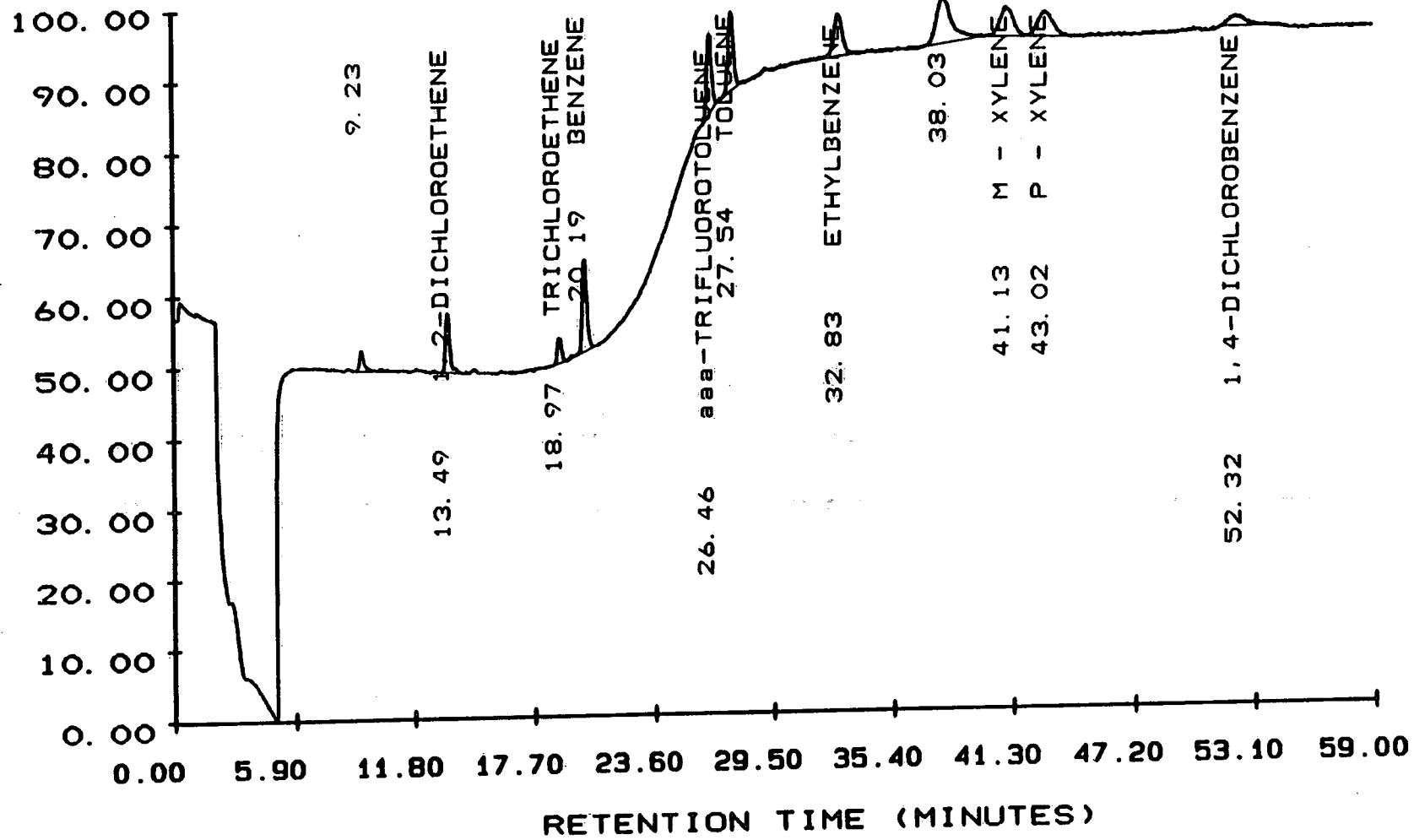
.04

INSTRUMENT: 20

DATE TIME: 09/11/92 22:06:10

PAGE NO.: 01

0000064



Y MAXIMUM: 7501.
Y MINIMUM: 6584.

START TIME: 0.00
END TIME: 59.00

0100065

Roy F. Weston, Inc. - Lionville Laboratory

09/24/92 13:45:30

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 09119220 .04 INST:20 VIAL:FO SEQ NUMBER:004
 TEST : DATE-TIME INJECTED : 09/11/92 22:06:10
 COLLECTION TIME : 59.00 DATE-TIME PROCESSED : 09/24/92 13:45:30
 METHOD: 20 / 20B REV #: 00122 ANALYST: YATES SAMP RATE: 0.78
 CLIENT ID: SAMPLE VOL: 5.0 ML
 CLIENT: COLUMN TYPE: 1% SP1000, PI
 LAB ID: STD B .5PPB RAW FILE: RAW1:IB284096
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

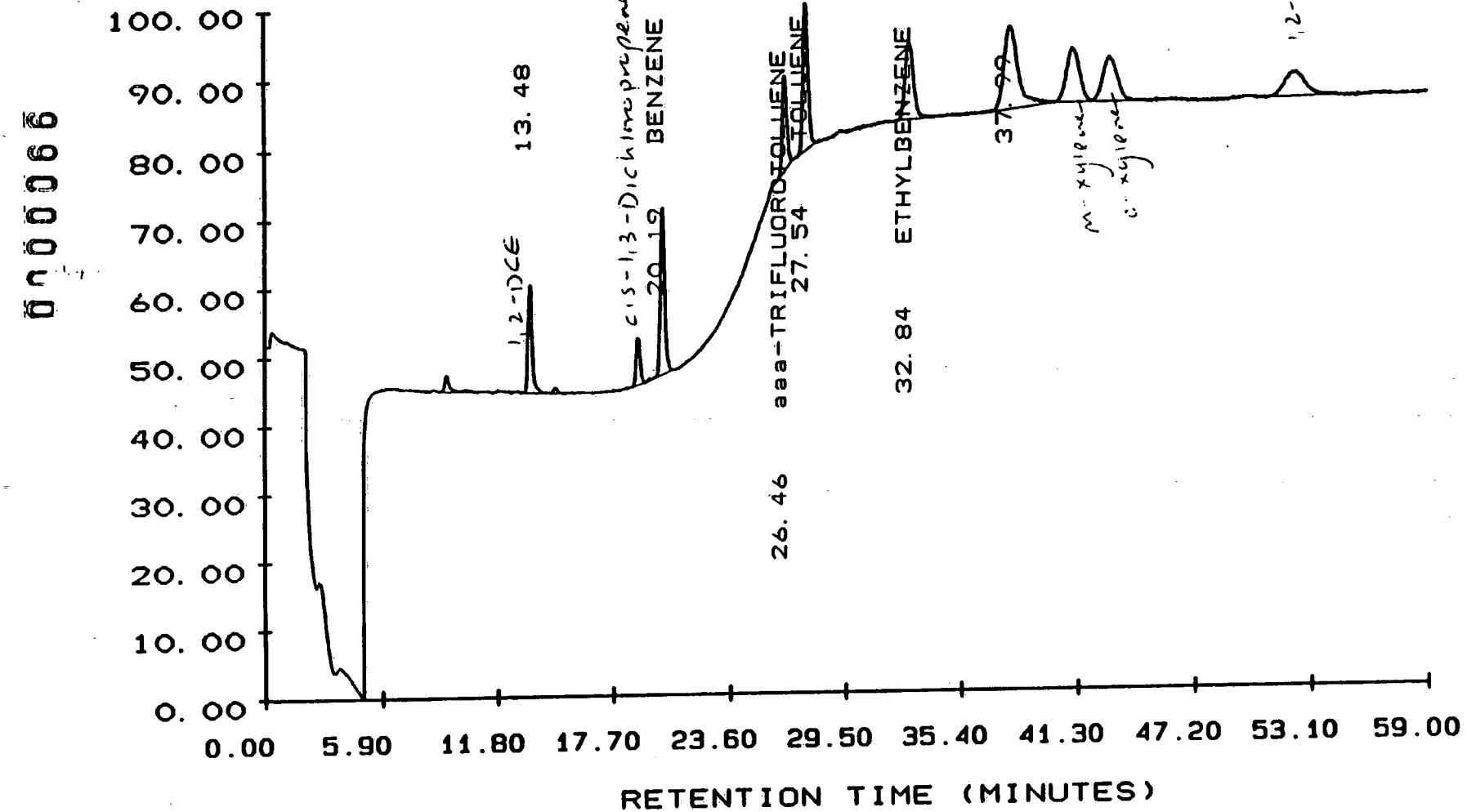
PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR COMPONENT NAME	HEIGHT	CONC PPB
001	4722	247		9.230			
002	10808	736		13.488	M 1,2-DICHLOROETHENE	0.045	
003	4571	317	V	18.974			
004	18017	1164		20.190	M BENZENE		
005	16210	1009	V	26.459	M aaa-TRIFLUOROTOLUENE	0.326	
006	18370	1005		27.537	M TOLUENE		
007	17626	540		32.827	M ETHYLBENZENE		
008	32512	602		38.026			
009	17415	377	T	41.126	M M - XYLENE		
010	16927	322		43.016	M O - XYLENE		
011	8287	127		52.324	M 1,2-DICHLOROBENZENE		

STD B 1PPB

SAMPLE NO.: 09119220
TEST NO.:
METHOD NO.: 20 / 20

.05

INSTRUMENT: 20
DATE TIME: 09/11/92 23:16:39
PAGE NO.: 01



Y MAXIMUM: 7597.
Y MINIMUM: 6582.

START TIME: 0. 00
END TIME: 59. 00

0000067

Roy F. Weston, Inc. - Lionville Laboratory

09/24/92 13:45:46

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 09119220 .05 INST:20 VIAL:FO SEQ NUMBER:005
 TEST : DATE-TIME INJECTED : 09/11/92 23:16:39
 COLLECTION TIME : 59.00 DATE-TIME PROCESSED : 09/24/92 13:45:46
 METHOD: 20 / 20B REV #: 00122 ANALYST: YATES SAMP RATE: 0.78
 CLIENT ID: SAMPLE VOL: 5.0 ML
 CLIENT: COLUMN TYPE: 1% SP1000, PI
 LAB ID: STD B 1PPB RAW FILE: RAW1:IB284128
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

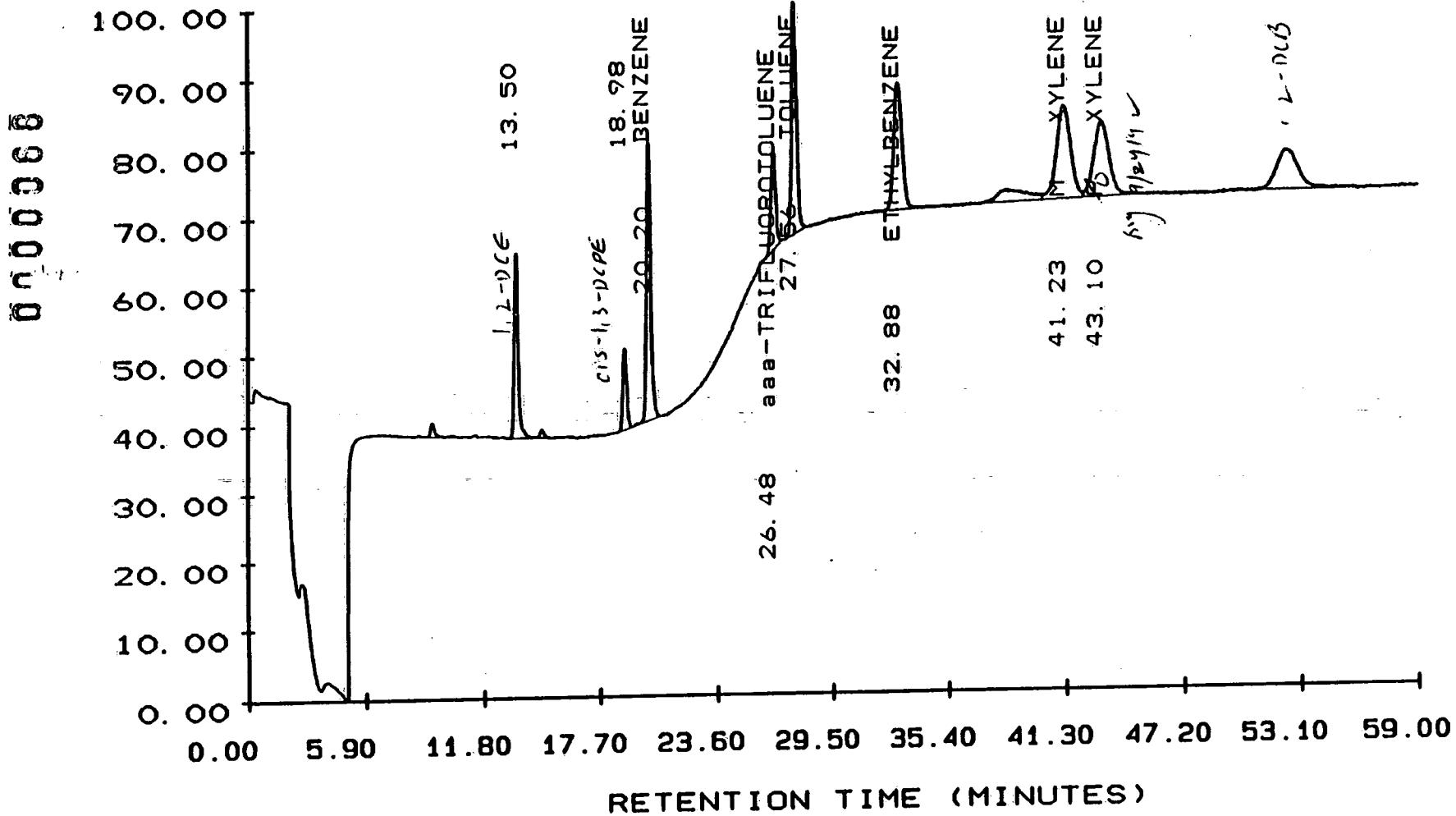
PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC PPB
001	4737	231	9.229			
002	23850	1565	13.484	M	1,2-DICHLOROETHENE	0.586
003	9854	682	V	18.964		
004	37133	2437	20.186	M	BENZENE	0.525
005	21634	1345	V	26.459	M aaa-TRIFLUOROTOLUENE	0.784
006	37912	2120	27.535	M	TOLUENE	0.506
007	32346	1101	32.840	M	ETHYLBENZENE	0.438
008	59712	1205	37.985			
009	35341	777	T	41.148	M M - XYLENE	0.412
010	32598	643		43.019	M O - XYLENE	0.411
011	26355	354		52.368	M 1,2-DICHLOROBENZENE	0.460

STD B 2PPB

SAMPLE NO.: 09119220
TEST NO.:
METHOD NO.: 20 / 20

.06

INSTRUMENT: 20
DATE TIME: 09/12/92 00:27:18
PAGE NO.: 01



Y MAXIMUM: 7786.
Y MINIMUM: 6582.

START TIME: 0.00
END TIME: 59.00

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Roy F. Weston, Inc. - Lionville Laboratory

09/24/92 13:45:59

MULTILEVEL EXTERNAL STANDARD

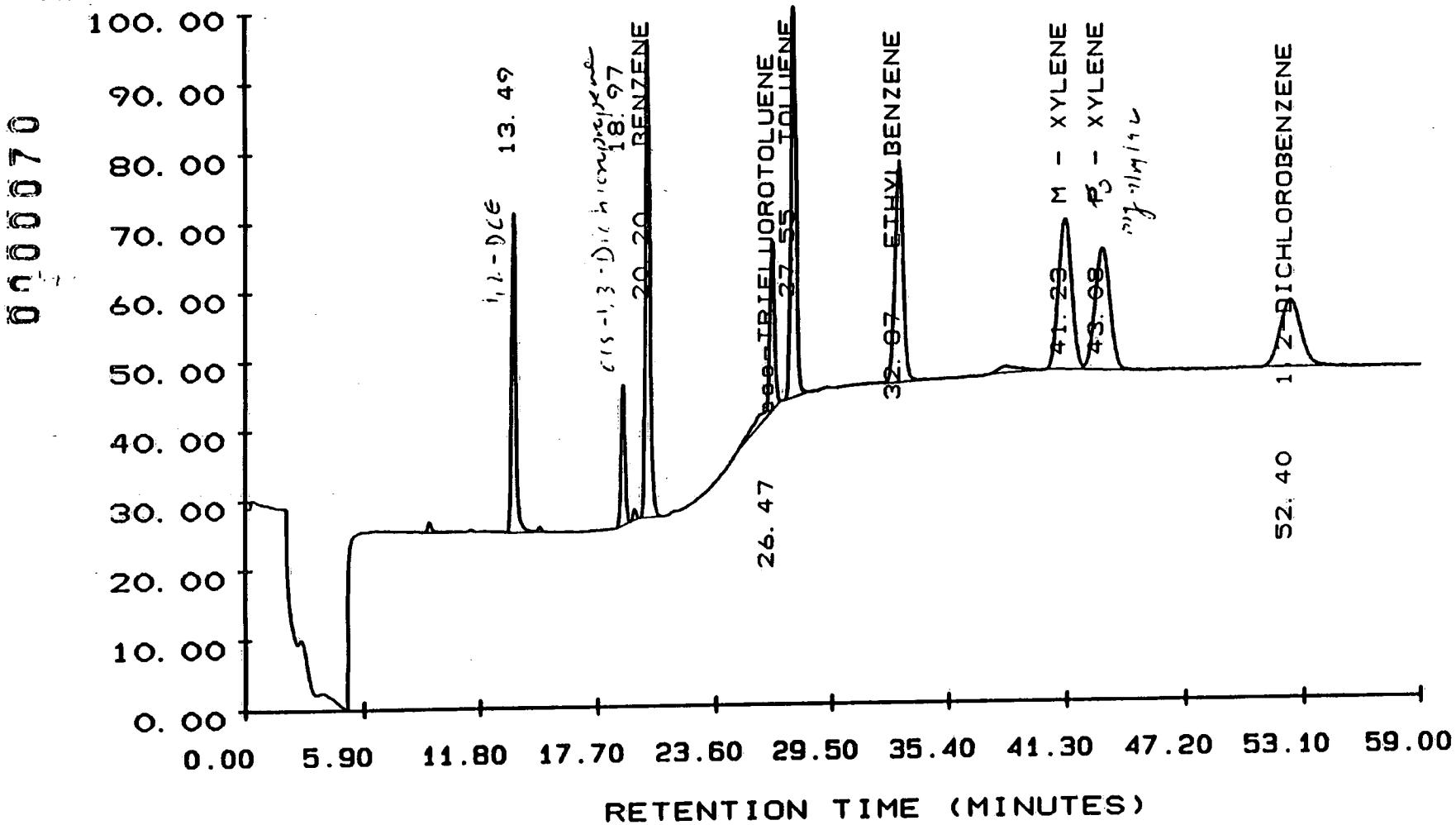
SAMPLE: 09119220 .06 INST:20 VIAL:F0 SEQ NUMBER:006
TEST : DATE-TIME INJECTED : 09/12/92 00:27:18
COLLECTION TIME : 59.00 DATE-TIME PROCESSED : 09/24/92 13:45:59
METHOD: 20 / 20B REV #: 00122 ANALYST: YATES SAMP RATE: 0.78
CLIENT ID: SAMPLE VOL: 5.0 ML
CLIENT: COLUMN TYPE: 1% SP1000, PI
LAB ID: STD B 2PPB RAW FILE: RAW1:IC284170
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR COMPONENT NAME	HEIGHT CONC PPB
002	4572	236		9.246		
003	48384	3206		13.497	M 1,2-DICHLOROETHENE	1.657
004	19559	1384	V	18.982		
005	72782	4808		20.204	M BENZENE	1.584
006	27043	1688	V	26.481	M aaa-TRIFLUOROTOLUENE	1.250
007	71312	4005		27.560	M TOLUENE	1.566
008	63198	2192		32.876	M ETHYLBENZENE	1.556
009	25421	221	T	38.410		
010	80382	1619	T	41.226	M M - XYLENE	1.626
011	69798	1296		43.100	M O - XYLENE	1.597
012	52774	693		52.427	M 1,2-DICHLOROBENZENE	1.561

STD B 5PPB

SAMPLE NO. : 09119220 .07
TEST NO. :
METHOD NO. : 20 / 20

INSTRUMENT: 20
DATE TIME: 09/12/92 01:38:04
PAGE NO. : 01



Y MAXIMUM: 8403.
Y MINIMUM: 6580.

START TIME: 0.00
END TIME: 59.00

000071

Roy F. Weston, Inc. - Lionville Laboratory

09/24/92 13:46:19

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 09119220 .07
 TEST :
 COLLECTION TIME : 59.00
 METHOD: 20 / 20B REV #: 00122 ANALYST: YATES SAMP RATE: 0.78
 CLIENT ID:
 CLIENT:
 LAB ID: STD B 5PPB
 SAMPLE WT : % MOISTURE :
 INST:20 VIAL:FO SEQ NUMBER:007
 DATE-TIME INJECTED : 09/12/92 01:38:04
 DATE-TIME PROCESSED : 09/24/92 13:46:19
 SAMPLE VOL: 5.0 ML
 COLUMN TYPE: 1% SP1000, PI
 RAW FILE: RAW1:IC284205
 DILUTION FACTOR : 1.0000

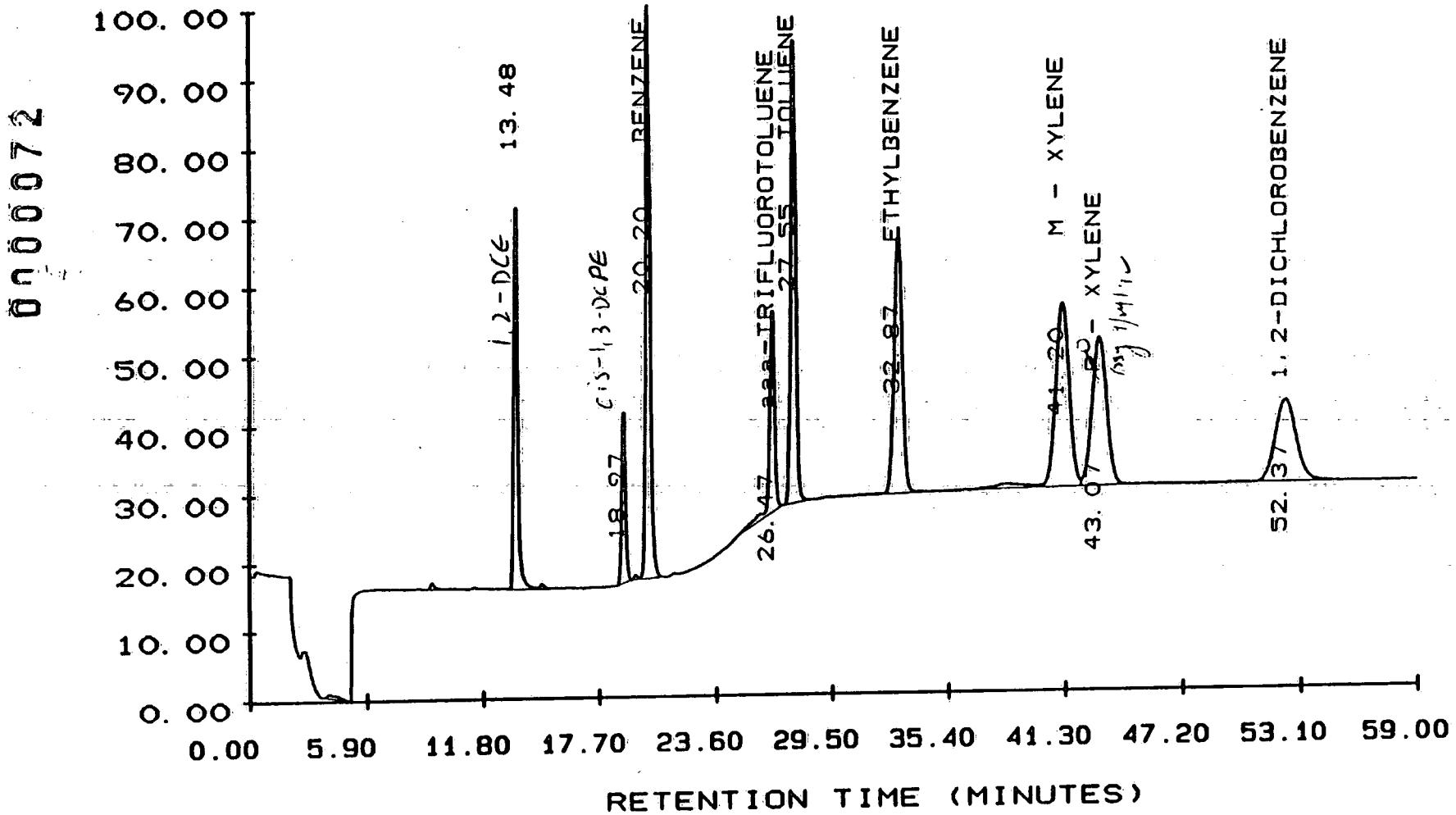
PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT	CONC
						PPB	
001	4560	256		9.242			
002	119009	8339		13.490	M 1,2-DICHLOROETHENE	5.007	
003	52501	3698	T	18.972			
004	5614	372	T	19.569			
005	190466	12553		20.198	M BENZENE	5.043	
006	85207	4429	V	26.474	M aaa-TRIFLUOROTOLUENE	4.981	
007	181165	10202		27.553	M TOLUENE	5.050	
008	162867	5617		32.872	M ETHYLBENZENE	5.067	
009	15821	192		38.308			
010	181757	3945	T	41.226	M M - XYLENE	4.980	
011	163361	3192		43.077	M O - XYLENE	5.040	
012	128179	1752		52.402	M 1,2-DICHLOROBENZENE	4.998	

STD B 1OPPB

SAMPLE NO. : 09119220
TEST NO. :
METHOD NO. : 20 / 20

.08

INSTRUMENT: 20
DATE TIME: 09/12/92 02:48:47
PAGE NO. : 01



Y MAXIMUM: 9455.
Y MINIMUM: 6578.

START TIME: 0.00
END TIME: 59.00

000073

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 09119220 .08
 TEST :
 COLLECTION TIME : 59.00 REV #: 00122 ANALYST: YATES
 METHOD: 20 / 20B
 CLIENT ID:
 LAB ID: STD B 10PPB
 SAMPLE WT :

% MOISTURE :
 DILUTION FACTOR : 1.0000

INST:20 VIAL:FO SEQ NUMBER:008
 DATE-TIME INJECTED : 09/12/92 02:48:47
 DATE-TIME PROCESSED : 09/24/92 13:46:46
 Samp Rate: 0.78
 SAMPLE VOL: 5.0 ML
 COLUMN TYPE: 1% SP1000, PI
 RAW FILE: RAW1:IC284240

PK NO	PEAK AREA	HEIGHT			
		PEAK HEIGHT	BL MINUTES #	GR CONC NAME PPB	
001	7214	175	4.007		
002	5420	270	9.251		
003	227010	15850	13.484	M 1,2-DICHLOROETHENE	
004	102846	7171	T	18.967	
005	367791	23818	20.196	M BENZENE	
006	149042	8335	V	26.473	M aaa-TRIFLUOROTOLUENE
007	338718	19160	T	27.551	M TOLUENE
008	304063	10622		32.865	M ETHYLBENZENE
009	7151	100	V	38.480	
010	351369	7538	T	41.201	M M - XYLINE
011	310350	6092		43.066	M O - XYLINE
012	252698	3411		52.369	M 1,2-DICHLOROBENZENE
				10.383	

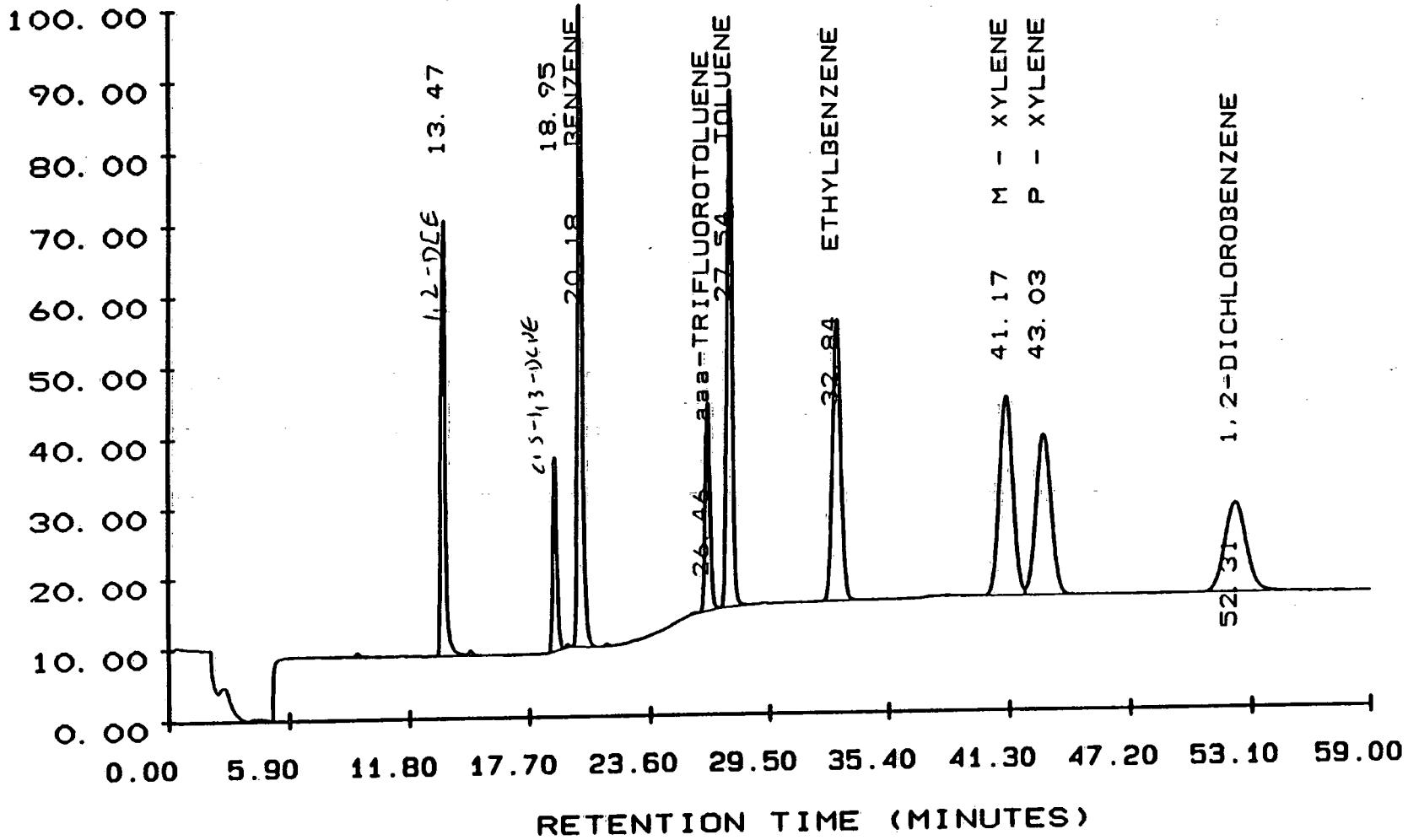
STD B 2OPPB

SAMPLE NO. : 09119220
TEST NO. :
METHOD NO. : 20 / 20

.09

INSTRUMENT: 20
DATE TIME: 09/12/92 03:59:22
PAGE NO. : 01

0000074



Y MAXIMUM: 11966.
Y MINIMUM: 6575.

START TIME: 0.00
END TIME: 59.00

0000075

Roy F. Weston, Inc. - Lionville Laboratory

09/24/92 13:47:15

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 09119220 .09 INST:20 VIAL:FO SEQ NUMBER:009
TEST : DATE-TIME INJECTED : 09/12/92 03:59:22
COLLECTION TIME : 59.00 DATE-TIME PROCESSED : 09/24/92 13:47:15
METHOD: 20 / 20B REV #: 00122 ANALYST: YATES SAMP RATE: 0.78
CLIENT ID: SAMPLE VOL: 5.0 ML
CLIENT: COLUMN TYPE: 1% SP1000, PI
LAB ID: STD B 20PPB RAW FILE: RAW1:IC284273
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

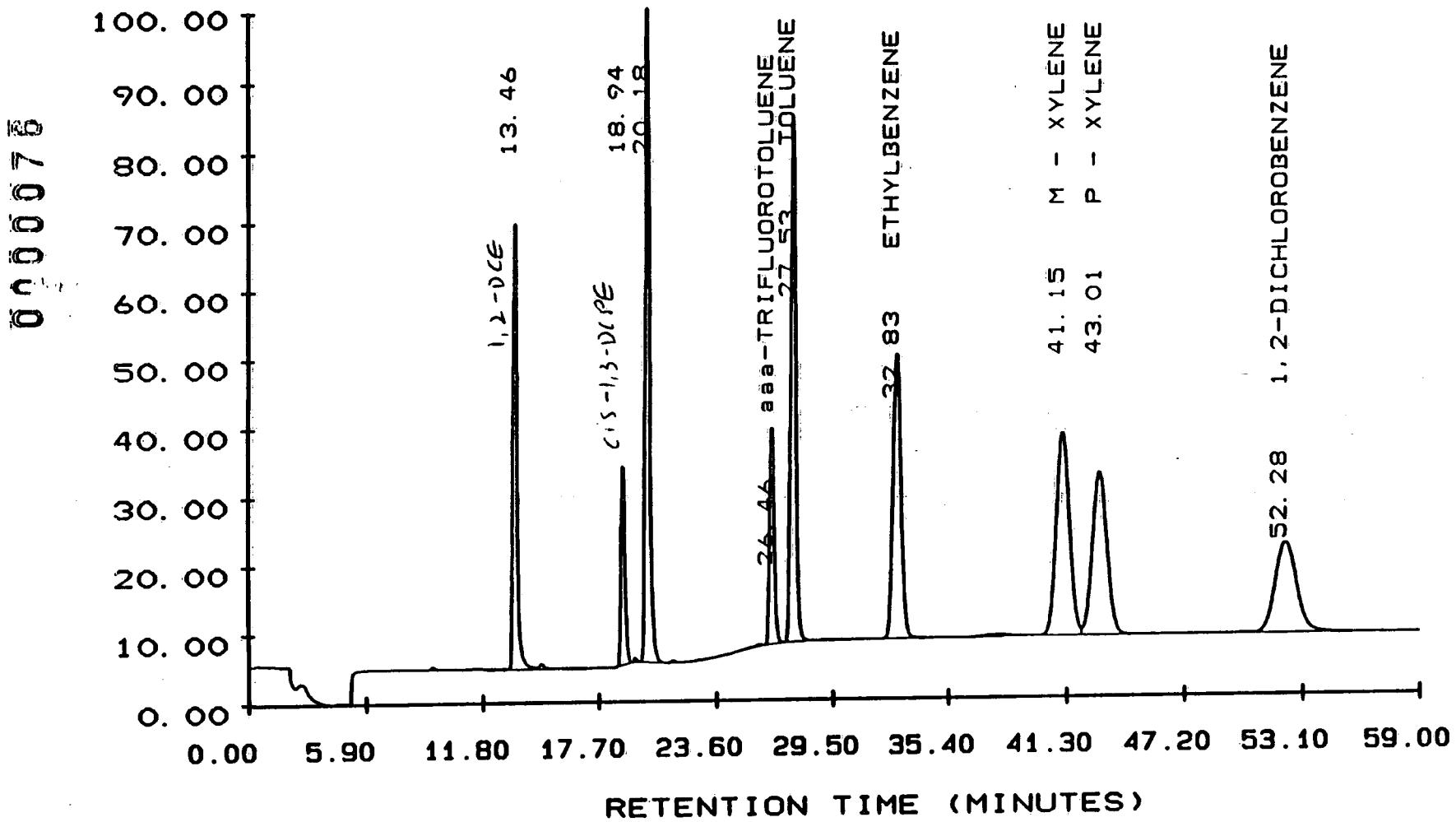
PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR NAME	COMPONENT	HEIGHT CONC PPB
001	6158	142		4.459			
002	5798	312		9.246			
003	458302	33076	T	13.469	M	1,2-DICHLOROETHENE	21.153
004	8659	377		14.785			
005	213268	14947	T	18.951			
006	8204	522	T	19.563			
007	740684	48758	V	20.183	M	BENZENE	21.212
008	2313	179		21.457			
009	258239	15906	V	26.459	M	aaa-TRIFLUOROTOLUENE	20.601
010	689506	39187		27.535	M	TOLUENE	21.349
011	616407	21539		32.840	M	ETHYLBENZENE	21.387
012	24064	199	T	38.321			
013	723446	15350	T	41.169	M	-XYLENE	21.426
014	638784	12374		43.028	M	O - XYLENE	21.715
015	511744	6928		52.313	M	1,2-DICHLOROBENZENE	21.800

STD B 40PPB

SAMPLE NO. : 09119220
TEST NO. :
METHOD NO. : 20 / 20

.10

INSTRUMENT: 20
DATE TIME: 09/12/92 05:09:51
PAGE NO. : 01



Y MAXIMUM: 16641.
Y MINIMUM: 6562.

START TIME: 0.00
END TIME: 59.00

0000077

Roy F. Weston, Inc. - Lionville Laboratory

09/24/92 13:47:41

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 09119220 .10 INST:20 VIAL:FO SEQ NUMBER:010
 TEST : DATE-TIME INJECTED : 09/12/92 05:09:51
 COLLECTION TIME : 59.00 DATE-TIME PROCESSED : 09/24/92 13:47:41
 METHOD: 20 / 20B REV #: 00122 ANALYST: YATES SAMP RATE: 0.78
 CLIENT ID: SAMPLE VOL: 5.0 ML
 CLIENT: COLUMN TYPE: 1% SP1000, PI
 LAB ID: STD B 40PPB RAW FILE: RAW1:IC284308
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

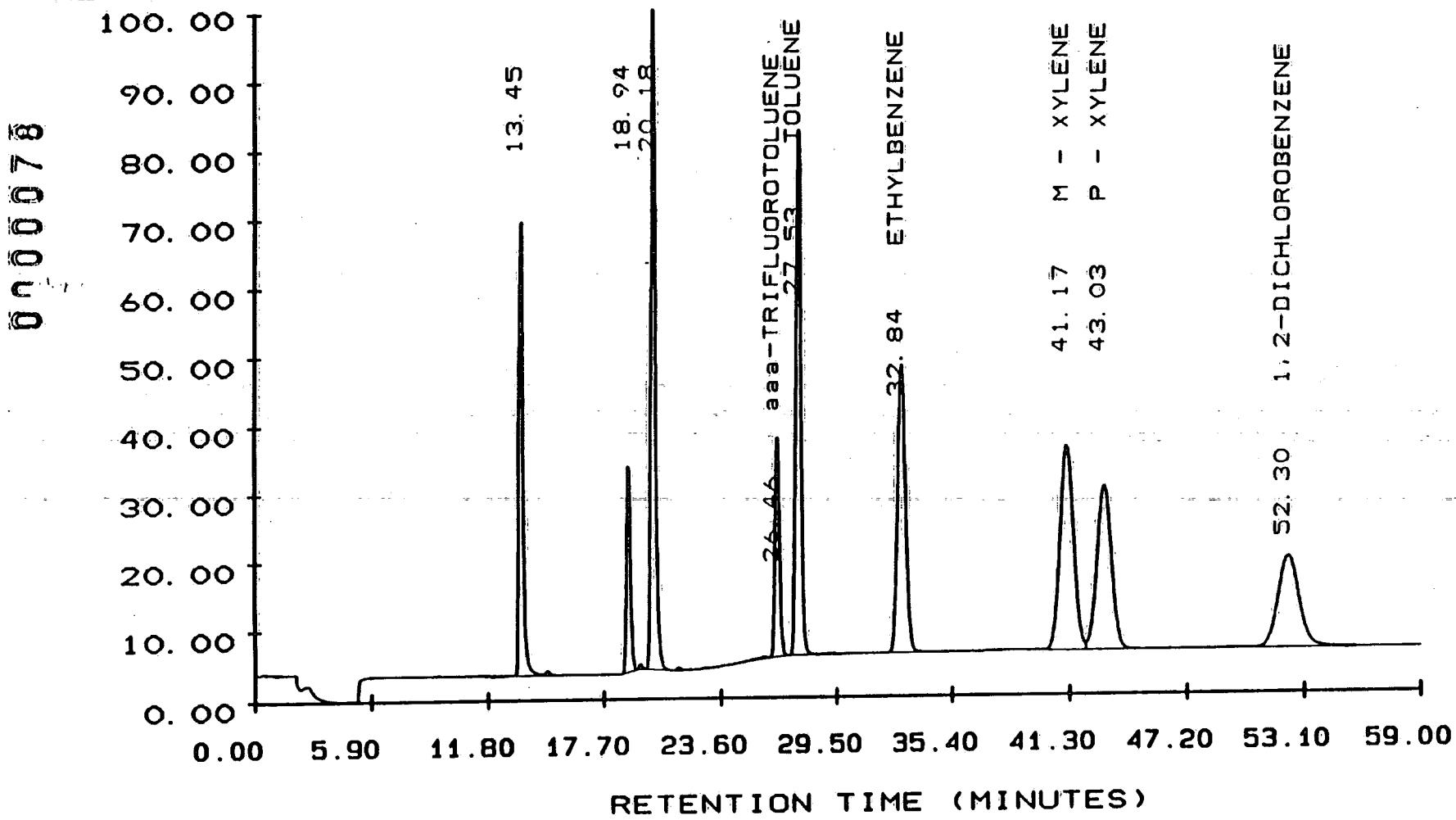
PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT	CONC	PPB
001	6367	374		9.268				
002	3574	101	V	11.424				
003	884892	64866	T	13.458	M 1,2-DICHLOROETHENE		41.902	
004	14592	670		14.779				
005	410430	29081	T	18.942				
006	18077	1120	T	19.548				
007	1427077	95239	V	20.177	M BENZENE		41.970	
008	4534	338		21.450				
009	14025	289	V	25.792				
010	497306	31416	V	26.455	M aaa-TRIFLUOROTOLUENE		41.710	
011	1325673	75971	V	27.531	M TOLUENE		42.032	
013	1180433	41613		32.834	M ETHYLBENZENE		41.963	
014	24026	290		38.063				
015	1367527	29592	T	41.154	M M - XYLENE		41.963	
016	1208411	23794		43.011	M O - XYLENE		42.454	
017	987712	13248		52.284	M 1,2-DICHLOROBENZENE		42.314	

STD B 60

SAMPLE NO. : 09119220
TEST NO. :
METHOD NO. : 20 / 20

19

INSTRUMENT: 20
DATE TIME: 09/12/92 23:25:16
PAGE NO. : 01



START TIME: 0.00
END TIME: 59.00

000079

Roy F. Weston, Inc. - Lionville Laboratory

09/24/92 13:48:06

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 09119220 .19 INST:20 VIAL:F0 SEQ NUMBER:019
 TEST : DATE-TIME INJECTED : 09/12/92 23:25:16
 COLLECTION TIME : 59.00 DATE-TIME PROCESSED : 09/24/92 13:48:06
 METHOD: 20 / 20B REV #: 00122 ANALYST: YATES SAMP RATE: 0.78
 CLIENT ID: SAMPLE VOL: 5.0 ML
 CLIENT: COLUMN TYPE: 1% SP1000, PI
 LAB ID: STD B 60 RAW FILE: RAW1:IC284655
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR NAME	COMPONENT	HEIGHT CONC PPB
001	3076	174		9.310			
002	5669	172	V	11.392			
003	1218341	89905	T	13.452	M	1,2-DICHLOROETHENE	58.245
004	20316	897		14.784			
005	575243	40928	T	18.939			
006	26868	1652	T	19.550			
007	1967443	131424	V	20.177	M	BENZENE	58.131
008	7314	510	V	21.456			
009	17102	406	V	25.791			
010	690875	43762	V	26.457	M	aaa-TRIFLUOROTOLUENE	58.513
011	1823769	104401	V	27.533	M	TOLUENE	58.019
012	5116	184	V	29.228			
013	1625911	57343		32.841	M	ETHYLBENZENE	58.086
014	14858	230		37.485			
015	1883247	40631	T	41.169	M	M - XYLENE	57.881
016	1658945	32636		43.030	M	O - XYLENE	58.511
017	1356813	18214		52.299	M	1,2-DICHLOROBENZENE	58.434

000080

FORM7GC
GC Volatiles Continuing Calibration

RFW:
 Work Order Number: NONE
 Client Name: LAB
 Date of Init. Calibration: 10/07/92 Instrument Number: 26
 Column Used: DB624, PID
 Matrix: WATER
 True Concentration: 40 (ppb)

MIX NO.	GC SAMPLE ID	DESCRIPTION	DATE/TIME ANALYZED
1	10079226.13	STD ABC CC	10/08/92 02:47:07

COMPOUND NAME	MIX	RT#	RT WINDOW	CON(ppb)	% REC	QC LIMITS(ppb)	QC LIMITS(%)
aa-Trifluorotoluene	01 17.016 16.92-17.11	35.5	88.8 NR	-	-	-	-
Benzene	01 14.332 14.23-14.43	35.6	89.1 NR	-	-	-	-
Ethylbenzene	01 23.790 23.69-23.89	35.4	88.6 NR	-	-	-	-
oluene	01 19.635 19.54-19.73	35.5	88.8 NR	-	-	-	-
Xylene (total)	01	-	35.8	89.6 NR	-	-	-

* - outside QC limits NR - not reported

STD ABC CC (40ppb)

13

SAMPLE NO. : 10079226

TEST NO. :

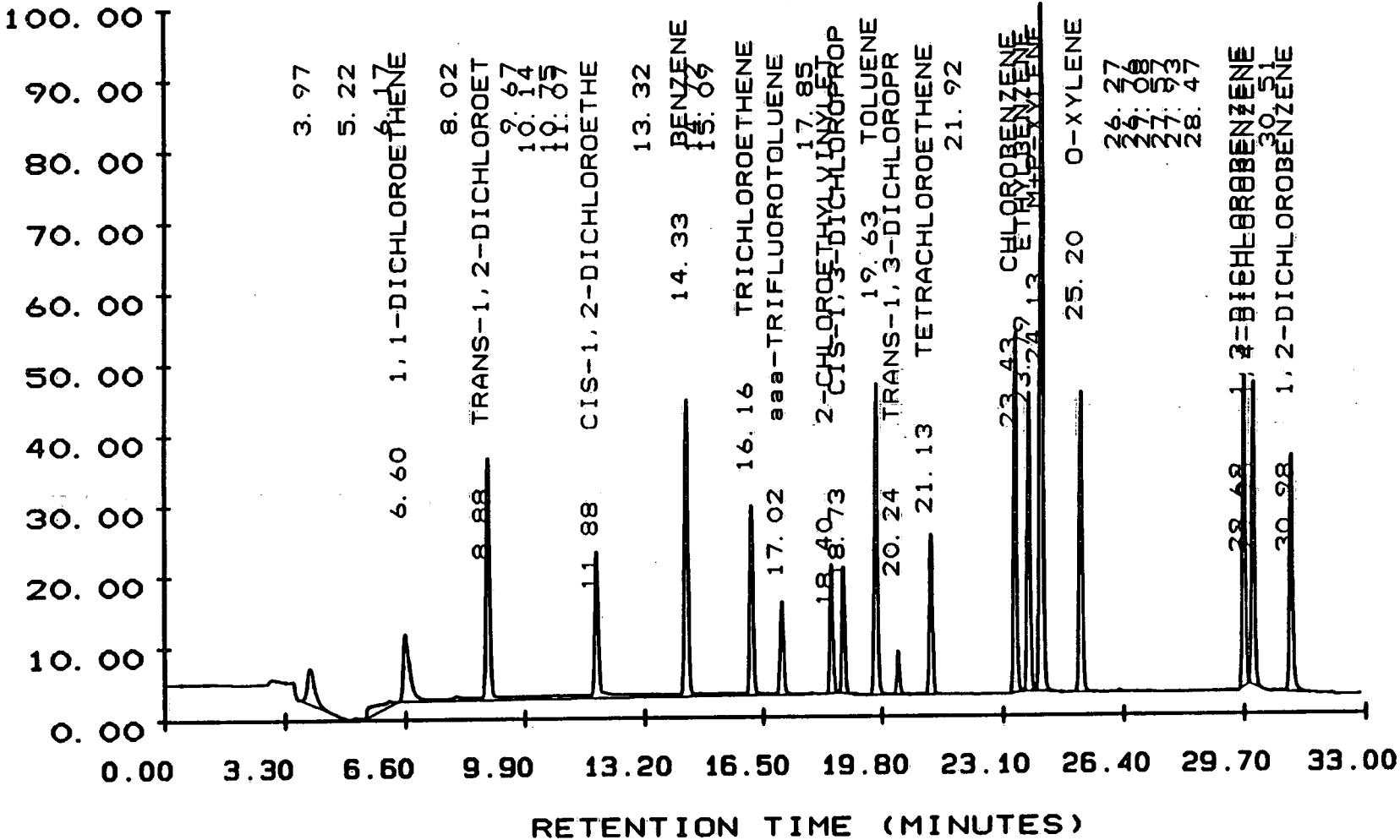
METHOD NO. : 26A / 26A

INSTRUMENT: 26

DATE T

PAGE NO : ..

PAGE NO. : 01



Y MAXIMUM: 73801.
Y MINIMUM: 48274.

START TIME: 0.00
END TIME: 33.00

0200082

Roy F. Weston, Inc. - Lionville Laboratory

10/08/92 03:20:44

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10079226 .13

INST:26 VIAL:FO SEQ NUMBER:013

TEST :

DATE-TIME INJECTED : 10/08/92 02:47:07

COLLECTION TIME : 32.86

DATE-TIME PROCESSED : 10/08/92 03:20:44

METHOD: 26A / 26A REV #: 00003 ANALYST: LINDAD SAMP RATE: 1.56

CLIENT ID:

SAMPLE VOL : 5.0 ML

CONTINUATION

BY TYPE: BB624 BIB

CLIENT:

ITEM NUMBER: 100-10005-1

LAB ID: STD

RAW FILE: RAW2:J8240855

40 ppb

Continuing std

Recalculations

9%
Denva

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR NAME	COMPONENT	HEIGHT CONC PPB
001	182970	12547	V	3.974			
002	8653	644	V	5.215			
003	110394	1856		6.166			
004	300589	23629	T	6.596	M 1,1-DICHLOROETHENE		46.134
005	59392	1562	T	8.015			
006	607853	86529	T	8.882	M TRANS-1,2-DICHLOROET		52.197
007	41542	1162	T	9.666			
008	23629	1196	T	10.142			
009	37786	1302	T	10.747			
010	29568	1210	T	11.072			
011	456915	51676	T	11.877	M CIS-1,2-DICHLOROETHE		51.280
012	51642	1174	T	13.319			
013	703078	106153	T	14.332	M BENZENE		51.358
014	17005	1080	T	14.719			
015	38016	913	T	15.087			
016	443949	67579	T	16.159	M TRICHLOROETHENE		52.930
017	231712	32785	V	17.016	M aaa-TRIFLUOROTOLUENE		50.241
018	4595	457	V	17.846			
019	261702	45512	V	18.395	M 2-CHLOROETHYLVINYLET		55.782
020	248806	44468	V	18.726	M CIS-1,3-DICHLOROPROP		83.475
021	658342	111248	V	19.635	M TOLUENE		50.564
022	83130	14883	V	20.242	M TRANS-1,3-DICHLOROPR		19.575
023	337005	56730	V	21.135	M TETRACHLOROETHENE		52.816
024	3808	171	V	21.924			
025	715181	128291	V	23.426	M CHLOROBENZENE		52.064
026	587258	102889	V	23.790	M ETHYLBENZENE		50.775
027	1431181	244942	V	24.126	M+P-XYLENE		103.200
028	623904	106996	V	25.201	M O-XYLENE		51.051
029	5722	770	V	26.267			
030	2253	160	V	26.757			
031	4346	257	V	27.077			
032	2662	244	V	27.565			
033	1338	205	V	27.935			
034	3021	209	V	28.473			
035	609523	111051	V	29.691	M 1,3-DICHLOROBENZENE		53.665
036	592467	108514	V	29.946	M 1,4-DICHLOROBENZENE		53.313
037	1600	400	V	30.515			
038	521850	84636	V	30.977	M 1,2-DICHLOROBENZENE		51.958

All complain

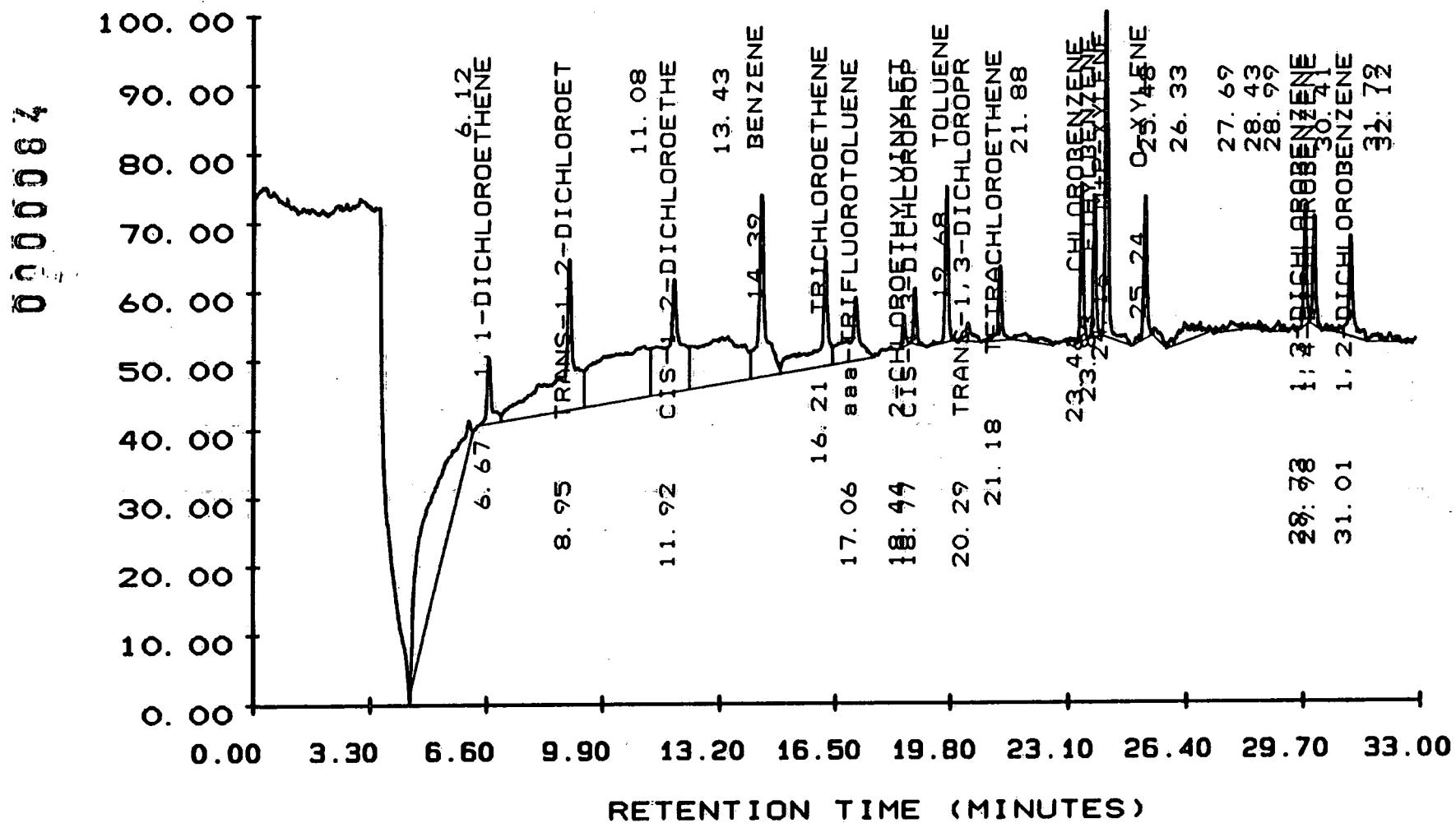
B54 10/30/9

10079226 602 DATA

STD AB 1 PPB

SAMPLE NO. : 10079226 . 01
TEST NO. :
METHOD NO. : 26A / 26A

INSTRUMENT: 26
DATE TIME: 10/07/92 09:53:10
PAGE NO. : 01



Y MAXIMUM: 50473.
Y MINIMUM: 48853.

START TIME: 0. 00
END TIME: 33. 00

0000085

Roy F. Weston, Inc. - Lionville Laboratory

10/07/92 16:41:24

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10079226 .01 INST: 26 VIAL: F0 SEQ NUMBER: 001
 TEST : DATE-TIME INJECTED : 10/07/92 09:53:10
 COLLECTION TIME : 32.86 DATE-TIME PROCESSED : 10/07/92 16:41:24
 METHOD: 26A / 26A REV #: 00003 ANALYST: LINDAD SAMP RATE: 1.56
 CLIENT ID: SAMPLE VOL: 5.0 ML
 CLIENT: COLUMN TYPE: DB624, PID
 LAB ID: STD AB 1 PPB RAW FILE: RAW2:J7281391
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

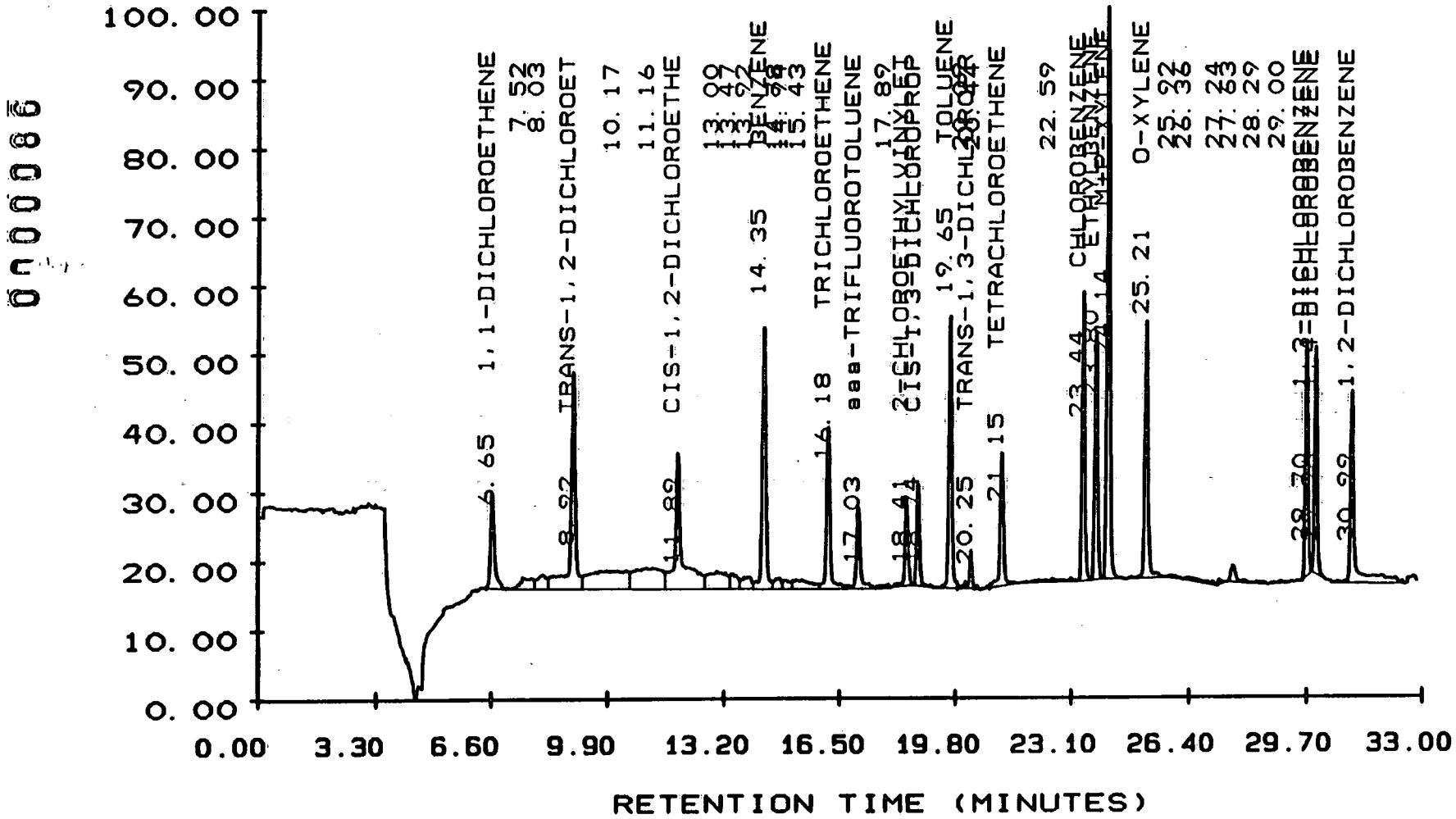
PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR COMPONENT NAME	HEIGHT	CONC
						PPB	
001	186624	602		6.124			
002	14349	1530	T	6.674	M 1,1-DICHLOROETHENE	1.251	
003	105306	3523	T	8.948	M TRANS-1,2-DICHLOROET	1.854	
004	122195	1190	T	11.078			
005	80115	2627	T	11.924	M CIS-1,2-DICHLOROETHE	2.035	
006	97261	1074	T	13.427			
007	54227	4241	T	14.385	M BENZENE	1.869	1.016
008	45267	2450	T	16.206	M TRICHLOROETHENE	0.983	
009	32454	1480	V	17.059	M aaa-TRIFLUOROTOLUENE	1.437	0.637
010	4576	719	V	18.444	M 2-CHLOROETHYL VINYLET	1.314	
011	8006	1312	V	18.767	M CIS-1,3-DICHLOROPROP	2.600	
012	22611	3619	V	19.678	M TOLUENE	1.615	0.984
013	5773	436	V	20.285	M TRANS-1,3-DICHLOROPR	0.663	
014	13357	1744	V	21.175	M TETRACHLOROETHENE	0.865	
015	7078	186	V	21.883			
016	20403	3624	V	23.465	M CHLOROBENZENE	0.951	
017	19379	3295	V	23.827	M ETHYLBENZENE	1.576	1.05
018	48998	7620	V	24.162	M M+P-XYLENE	2.291	1.68
019	20774	3345	V	25.235	M O-XYLENE	1.537	0.93
020	3686	218	V	25.477			
021	14522	421	V	26.334			
022	6157	203	V	27.688			
023	2515	191	V	28.432			
024	2752	220	V	28.988			
025	15750	2795	V	29.725	M 1,3-DICHLOROBENZENE	0.923	
026	14643	2522	V	29.979	M 1,4-DICHLOROBENZENE	0.910	
027	1933	115	V	30.414			
028	22144	2345	V	31.010	M 1,2-DICHLOROBENZENE	1.489	
029	3283	172	V	31.787			
030	2496	202		32.115			

B79 10/07/92

STD AB 5 PPB

SAMPLE NO. : 10079226 .03
TEST NO. :
METHOD NO. : 26A / 26A

INSTRUMENT: 26
DATE TIME: 10/07/92 11:38:25
PAGE NO. : 01



Y MAXIMUM: 53152.
Y MINIMUM: 48807.

START TIME: 0.00
END TIME: 33.00

000067

Roy F. Weston, Inc. - Lionville Laboratory

10/07/92 16:42:09

MULTILEVEL EXTERNAL STANDARD

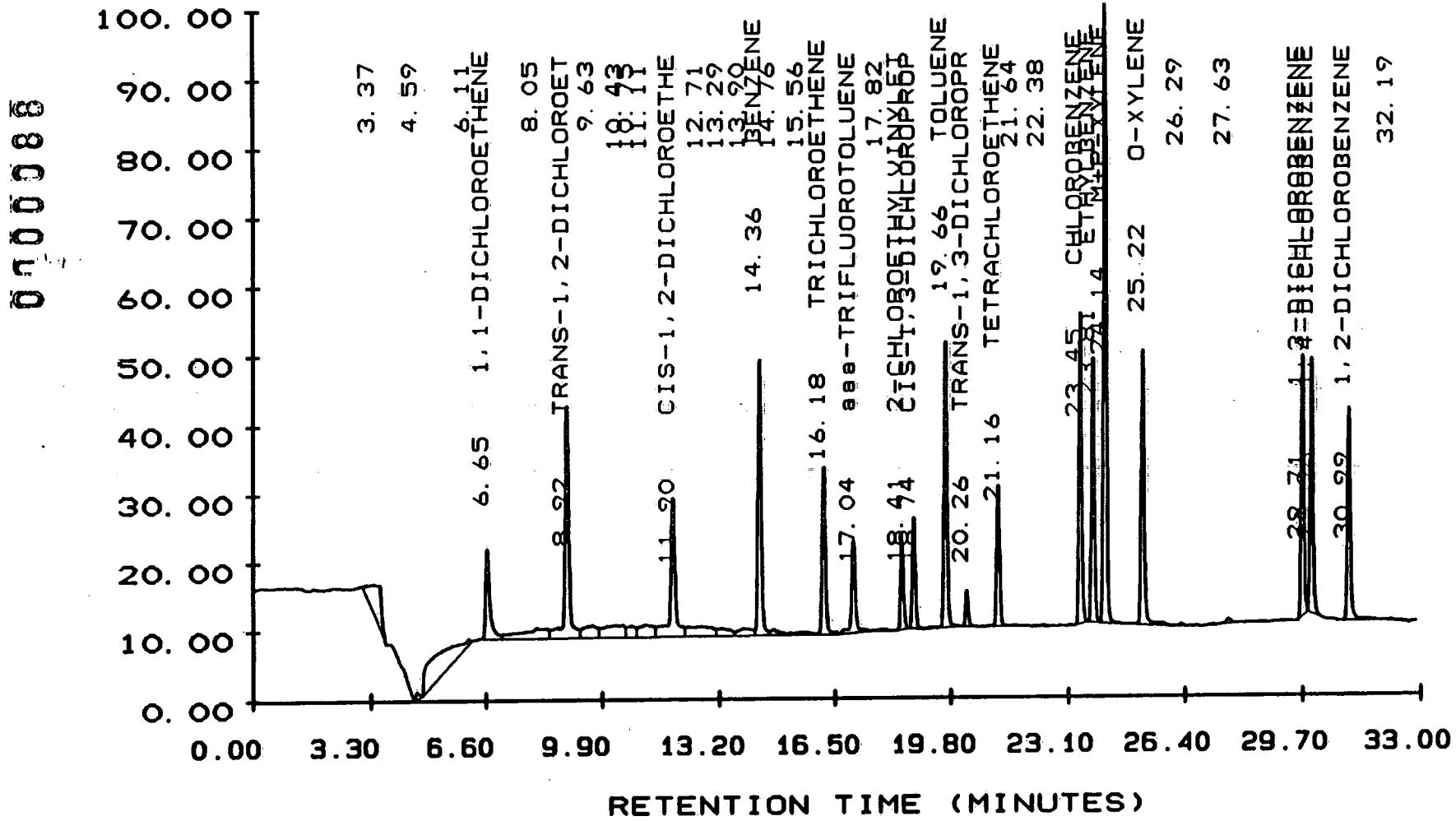
SAMPLE: 10079226 .03 INST:26 VIAL:FO SEQ NUMBER:003
TEST : DATE-TIME INJECTED : 10/07/92 11:38:25
COLLECTION TIME : 32.86 DATE-TIME PROCESSED : 10/07/92 16:42:09
METHOD: 26A / 26A REV #: 00003 ANALYST: LINDAD SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 5.0 ML
CLIENT: COLUMN TYPE: DB624, PID
LAB ID: STD AB 5 PPB RAW FILE: RAW2:J7240515
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR COMPONENT	NAME	HEIGHT CONC PPB
<u>Recalculations</u>							
001	45549	5828	V	6.646	M	1,1-DICHLOROETHENE	9.981
002	17664	734	T	7.522			
003	17114	893	T	8.035			
004	129184	13595	T	8.916	M	TRANS-1,2-DICHLOROET	7.963
005	87181	1167	T	10.170			
006	72653	1347	T	11.156			
007	126016	8486	T	11.890	M	CIS-1,2-DICHLOROETHE	7.917
008	41152	1113	T	13.001			
009	13747	962	T	13.465			
010	15398	779	T	13.922			
011	116006	16357	T	14.354	M	BENZENE	7.753
012	9926	703	T	14.785			5.13
013	7923	585	T	14.937			
014	20493	574	T	15.426			
015	73702	10079	T	16.178	M	TRICHLOROETHENE	7.068
016	43360	5124	V	17.033	M	aaa-TRIFLUOROTOLUENE	7.118
017	4166	222	V	17.892			4.70
018	35072	5374	V	18.411	M	2-CHLOROETHYL VINYLET	6.974
019	38240	6345	V	18.740	M	CIS-1,3-DICHLOROPROP	12.032
020	105664	17048	V	19.652	M	TOLUENE	7.722
021	1348	439	V	20.091			5.29
022	10909	2069	V	20.252	M	TRANS-1,3-DICHLOROPR	2.801
023	1283	252	V	20.439			
024	59334	8316	V	21.151	M	TETRACHLOROETHENE	7.074
025	11379	233	V	22.589			
026	100979	18012	V	23.441	M	CHLOROBENZENE	6.850
027	87648	15342	V	23.804	M	ETHYL BENZENE	7.527
028	211507	35703	V	24.139	M	M+P-XYLENE	14.232
029	100960	15997	V	25.213	M	O-XYLENE	7.581
030	2362	159	V	25.921			
031	8877	201	V	26.363			
032	2656	393	V	27.243			
033	11488	1054	V	27.628			
034	2835	134	V	28.293			
035	2349	130	V	28.996			
036	81094	14700	V	29.702	M	1,3-DICHLOROBENZENE	6.723
037	77677	14100	V	29.956	M	1,4-DICHLOROBENZENE	6.635
038	109421	11917	V	30.987	M	1,2-DICHLOROBENZENE	7.360

STD AB 10 PPB

SAMPLE NO. : 10079226 .04
 TEST NO. :
 METHOD NO. : 26A / 26A
 100.00

INSTRUMENT: 26
 DATE TIME: 10/07/92 12:30:12
 PAGE NO. : 01



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Roy F. Weston, Inc. - Lionville Laboratory

10/07/92 16:43:23

MULTILEVEL EXTERNAL STANDARD

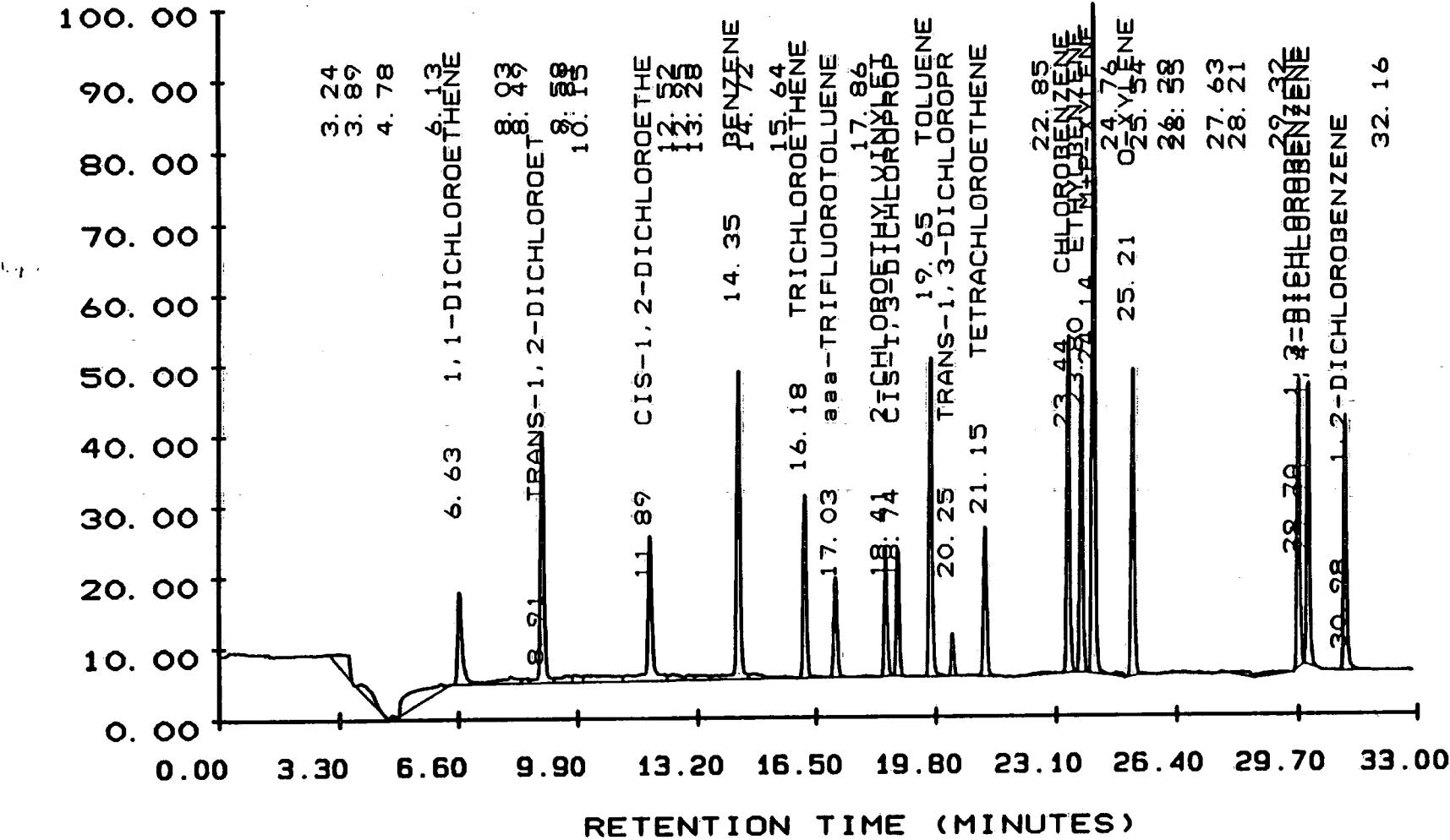
SAMPLE: 10079226 .04 INST:26 VIAL:FO SEQ NUMBER:004
TEST : DATE-TIME INJECTED : 10/07/92 12:30:12
COLLECTION TIME : 32.86 DATE-TIME PROCESSED : 10/07/92 16:43:23
METHOD: 26A / 26A REV #: 00003 ANALYST: LINDAD SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 5.0 ML
CLIENT: COLUMN TYPE: DB624, PID
LAB ID: STD AB 10 PP RAW FILE: RAW2:J7240534
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR NAME	COMPONENT	HEIGHT CONC PPB
<hr/>							
001	86688	3238	V	3.370			
002	5542	716	V	4.593			
003	164090	516		6.115			
004	83341	9785	T	6.648	M 1,1-DICHLOROETHENE		18.017
005	61094	1128	T	8.046			
006	210074	25335	T	8.918	M TRANS-1,2-DICHLOROET		15.083
007	35808	1321	T	9.633			
008	54227	1308	T	10.432			
009	21082	1230	T	10.752			
010	37440	1324	T	11.114			
011	144928	15148	T	11.896	M CIS-1,2-DICHLOROETHE		14.606
012	49894	986	T	12.709			
013	20762	795	T	13.292			
014	21075	766	T	13.899			
015	201613	29962	T	14.358	M BENZENE		14.360
016	11098	604	T	14.758			
017	10067	280	T	15.561			
018	118259	18350	V	16.183	M TRICHLOROETHENE		13.665
019	79411	10047	V	17.037	M aaa-TRIFLUOROTOLUENE		14.793
020	4595	205	V	17.819			
021	56454	9667	V	18.415	M 2-CHLOROETHYLVINYLET		12.195
022	69216	12118	V	18.745	M CIS-1,3-DICHLOROPROP		22.851
023	188141	31085	V	19.657	M TOLUENE		14.106
024	22618	3856	V	20.261	M TRANS-1,3-DICHLOROPR		5.140
025	91917	15305	V	21.157	M TETRACHLOROETHENE		13.678
026	2778	123	V	21.643			
027	2912	168	V	22.378			
028	188704	33572	V	23.445	M CHLOROBENZENE		13.230
029	164083	28673	V	23.808	M ETHYLBENZENE		14.113
030	389594	66900	V	24.144	M M+P-XYLENE		27.497
031	183994	29784	V	25.218	M O-XYLENE		14.167
032	1568	257	V	26.289			
033	5958	499	V	27.630			
034	155226	28232	V	29.706	M 1,3-DICHLOROBENZENE		13.315
035	152870	27586	V	29.960	M 1,4-DICHLOROBENZENE		13.302
036	141523	23037	V	30.991	M 1,2-DICHLOROBENZENE		14.180
037	4640	165		32.187			

STD AB 20 PPB

SAMPLE NO.: 10079226 .05
TEST NO.:
METHOD NO.: 26A / 26A

INSTRUMENT: 26
DATE TIME: 10/07/92 13:22:12
PAGE NO.: 01



Y MAXIMUM: 62630.
Y MINIMUM: 48634.

START TIME: 0.00
END TIME: 33.00

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Roy F. Weston, Inc. - Lionville Laboratory

10/07/92 16:44:58

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10079226 .05 INST:26 VIAL:FO SEQ NUMBER:005
 TEST : DATE-TIME INJECTED : 10/07/92 13:22:12
 COLLECTION TIME : 32.86 DATE-TIME PROCESSED : 10/07/92 16:44:58
 METHOD: 26A / 26A REV #: 00003 ANALYST: LINDAD SAMP RATE: 1.56
 CLIENT ID: SAMPLE VOL: 5.0 ML
 CLIENT: COLUMN TYPE: DB624, PID
 LAB ID: STD AB 20 PP RAW FILE: RAW2:J7240557
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL	RT MINUTES	GR #	COMPONENT NAME	HEIGHT	CONC PPB
001	84141	2160	V	3.245				
002	53158	1456	V	3.887				
003	6490	635	V	4.780				
004	186784	1331		6.128				
005	155629	17941	T	6.633	M	1,1-DICHLOROETHENE	34.582	
006	47027	1331	T	8.030				
007	12301	990	T	8.493				
008	346400	49091	T	8.908	M	TRANS-1,2-DICHLOROET	29.491	
009	33011	1348	T	9.578				
010	24282	1414	T	9.809				
011	77382	1352	T	10.148				
012	263334	28276	T	11.889	M	CIS-1,2-DICHLOROETHE	27.786	
013	28794	1229	T	12.517				
014	15194	1063	T	12.951				
015	23085	965	T	13.285				
016	436659	60447	T	14.351	M	BENZENE	29.163	20.106
017	24704	1019	T	14.720				
018	12966	383	T	15.641				
019	227270	35812	T	16.176	M	TRICHLOROETHENE	27.593	
020	133472	19487	V	17.030	M	aaa-TRIFLUOROTOLUENE	29.510	20.71
021	5190	336	V	17.863				
022	132166	22972	V	18.408	M	2-CHLOROETHYL VINYLET	28.373	
023	139334	24848	V	18.739	M	CIS-1,3-DICHLOROPROP	46.707	
024	372198	62532	V	19.650	M	TOLUENE	28.408	19.88
025	44928	8180	V	20.254	M	TRANS-1,3-DICHLOROPR	10.800	
026	183117	29056	V	21.150	M	TETRACHLOROETHENE	26.670	
027	20006	466	V	22.846				
028	370214	66012	V	23.437	M	CHLOROBENZENE	26.530	
029	327654	57803	V	23.801	M	ETHYLBENZENE	28.503	19.87
030	766970	130959	V	24.136	M	M+P-XYLENE	54.735	39.88
031	11155	658	V	24.762				
032	346227	60137	V	25.211	M	O-XYLENE	28.666	20.05
033	3526	240	V	25.538				
034	3674	386	V	26.287				
035	10291	345	V	26.551				
036	3994	404	V	27.628				
037	22701	818	V	28.207				
038	29190	341	V	29.318				
039	307930	56357	V	29.699	M	1,3-DICHLOROBENZENE	27.018	
040	304614	55116	V	29.953	M	1,4-DICHLOROBENZENE	26.913	

000092

SAMPLE: 10079226 .05

PAGE NUMBER: 2

DATE-TIME INJECTED : 10/07/92 13:22:12

DATE-TIME PROCESSED : 10/07/92 16:44:58

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR NAME	HEIGHT CONC PPB
041	287066	48010	V	30.984	M 1,2-DICHLOROBENZENE	29.496
042	2368	116		32.161		

STD AB 60 PPB

SAMPLE NO. : 10079226 .06

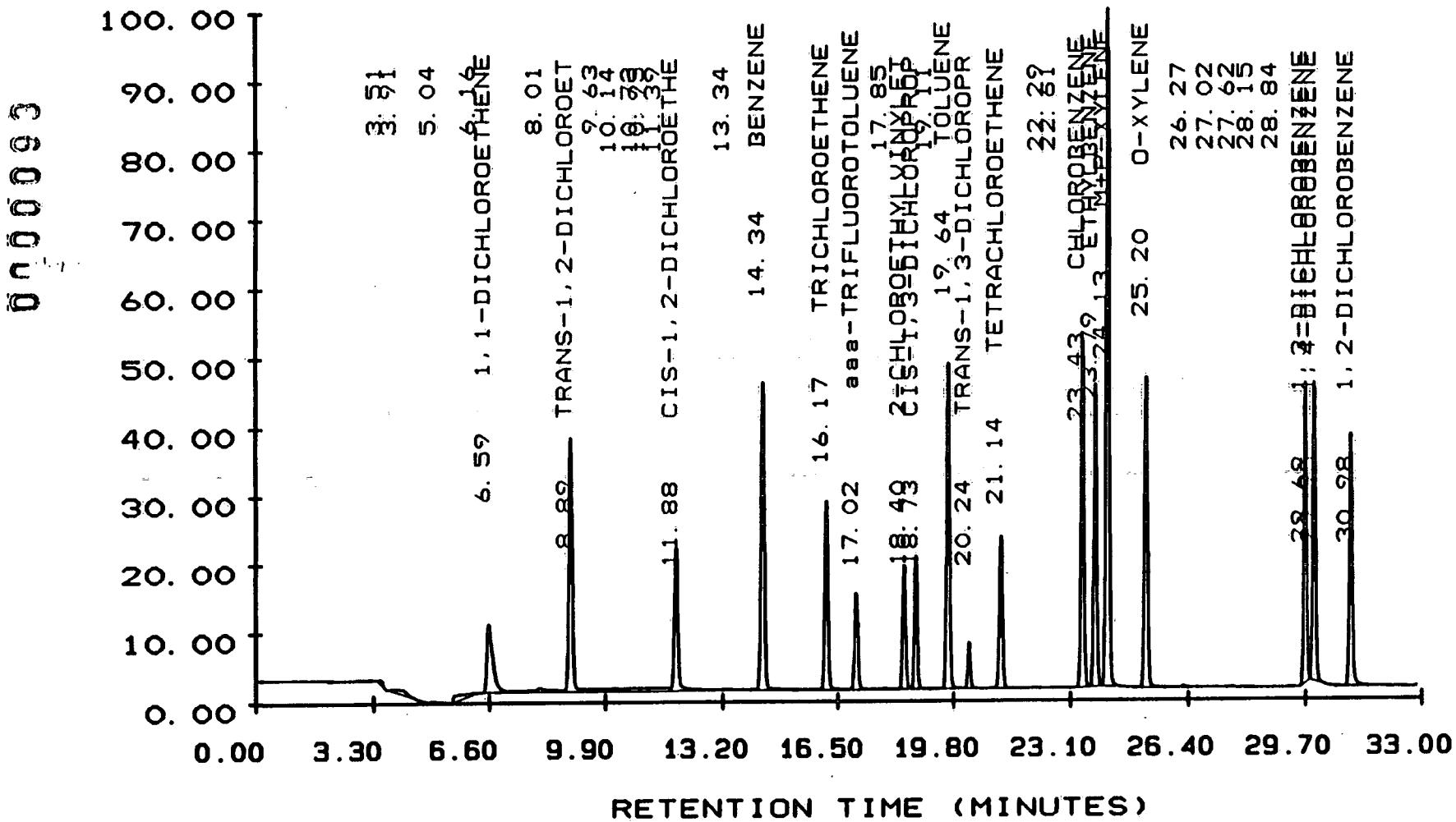
TEST NO. :

METHOD NO. : 26A / 26A

INSTRUMENT: 26

DATE TIME: 10/07/92 14:14:17

PAGE NO.: 01



Y MAXIMUM: 88571.
 Y MINIMUM: 48590.

START TIME: 0.00
 END TIME: 33.00

0200094

Roy F. Weston, Inc. - Lionville Laboratory

10/07/92 16:46:11

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10079226 .06 INST:26 VIAL:FO SEQ NUMBER:006
TEST : DATE-TIME INJECTED : 10/07/92 14:14:17
COLLECTION TIME : 32.86 DATE-TIME PROCESSED : 10/07/92 16:46:11
METHOD: 26A / 26A REV #: 00003 ANALYST: LINDAD SAMP RATE: 1.56
CLIENT ID: SAMPLE VOL: 5.0 ML
CLIENT: COLUMN TYPE: DB624, PID
LAB ID: STD AB 60 PP RAW FILE: RAW2:J7240578
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR NAME	COMPONENT	HEIGHT CONC PPB
001	15406	2651	V	3.509			
002	63168	1668	V	3.907			
003	13286	575	V	5.043			
004	87078	1092		6.164			
005	456992	38678	T	6.592	M 1,1-DICHLOROETHENE		76.699
006	100954	2516	T	8.011			
007	1005504	146864	T	8.887	M TRANS-1,2-DICHLOROET		88.790
008	41101	1704	T	9.633			
009	55757	1890	T	10.138			
010	54816	1937	T	10.734			
011	24557	1994	T	10.954			
012	69312	1892	T	11.394			
013	599379	82415	T	11.882	M CIS-1,2-DICHLOROETHE		82.142
014	30829	789	T	13.338			
015	1183955	177891	T	14.340	M BENZENE		86.194
016	688538	108634	T	16.168	M TRICHLOROETHENE		85.676
017	371616	54516	V	17.023	M aaa-TRIFLUOROTOLUENE		84.120
018	9798	849	V	17.848			
019	408774	70655	V	18.400	M 2-CHLOROETHYLVINYLET		86.356
020	427520	75630	V	18.732	M CIS-1,3-DICHLOROPROP		141.872
021	2106	183	V	19.110			
022	1102171	187777	V	19.642	M TOLUENE		85.370
023	140141	25595	V	20.245	M TRANS-1,3-DICHLOROPR		33.597
024	522131	86926	V	21.140	M TETRACHLOROETHENE		81.345
025	4851	336	V	22.288			
026	5037	219	V	22.610			
027	1103355	198700	V	23.430	M CHLOROBENZENE		80.932
028	992710	174209	V	23.794	M ETHYLBENZENE		86.007
029	2276423	389674	V	24.131	M M+P-XYLENE		164.740
030	1044941	178757	V	25.204	M O-XYLENE		85.331
031	11123	1199	V	26.269			
032	4883	205	V	27.016			
033	5984	707	V	27.624			
034	3110	189	V	28.150			
035	2432	188	V	28.837			
036	940832	172333	V	29.691	M 1,3-DICHLOROBENZENE		83.521
037	920736	168908	V	29.946	M 1,4-DICHLOROBENZENE		83.172
038	862880	144733	V	30.976	M 1,2-DICHLOROBENZENE		88.816

000095

WESTON

RAW QC DATA

GC VOLATILES SHEET

000009 CLIENT SAMPLE NO.
11/3/92Lab Name: Roy F. Weston, Inc. Work Order: 06720-002-015-0200-00

BLK

Client: LE CARPENTERMatrix: WATERLab Sample ID: 92LV5140-MB1Sample wt/vol: 5.00 (g/mL) MLLab File ID: J6281002Level: (low/med) LOWDate Received: 10/06/92% Moisture: not dec. Date Analyzed: 10/06/92Column: (pack/cap) PACKDilution Factor: 1.00

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

71-43-2-----	Benzene	1.0	U
100-41-4-----	Ethylbenzene	1.0	U
108-88-3-----	Toluene	1.0	U
1330-20-7-----	Xylene (total)	2.0	U

12/88 Rev.

92LV5140-MB1

SAMPLE NO. : 10069220 . 01

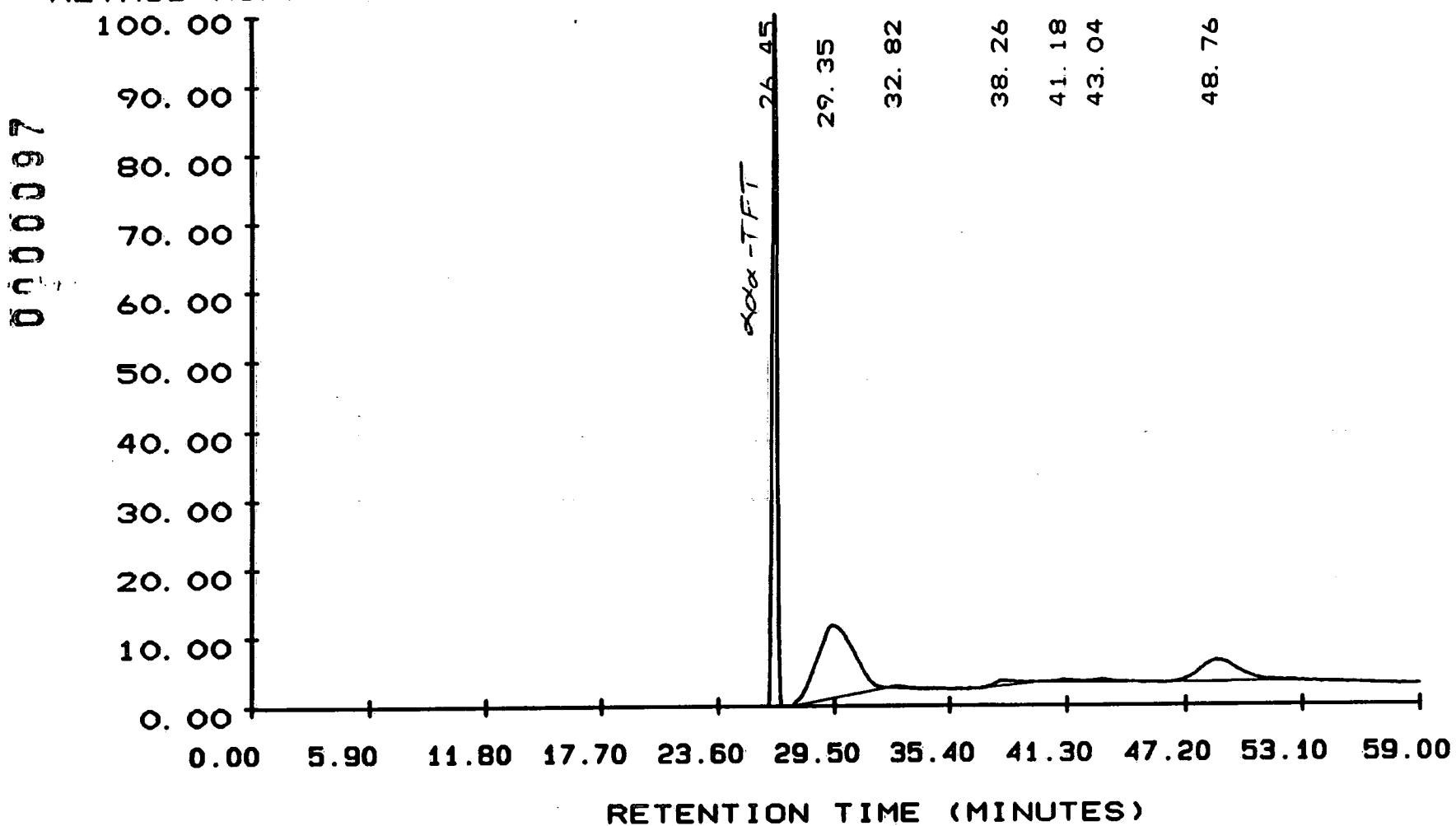
TEST NO. :

METHOD NO. : 20E / 20E

INSTRUMENT: 20

DATE TIME: 10/06/92 18:17:00

PAGE NO. : 01



Y MAXIMUM: 10970.

Y MINIMUM: 7108.

START TIME: 0.00

END TIME: 59.00

Digitized by srujanika@gmail.com

Roy F. Weston, Inc. - Lionville Laboratory

10/06/92 23:39:06

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10069220 .01 INST:20 VIAL:F0 SEQ NUMBER:001
TEST : DATE-TIME INJECTED : 10/06/92 18:17:00
COLLECTION TIME : 59.00 DATE-TIME PROCESSED : 10/06/92 23:39:06
METHOD: 20E / 20B REV #: 00122 ANALYST: LINDAD SAMP RATE: 0.78
CLIENT ID: SAMPLE VOL: 5.0 ML
CLIENT: COLUMN TYPE: 1% SP1000, PI
LAB ID: 92LV5140-MB1 RAW FILE: RAW2:J6281002
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR NAME	HEIGHT		
						CONC	PPB	
				13.470	M 1,2-DICHLOROETHENE			
				20.180	M BENZENE			
001	590822	38532	V	26.448	M aaa-TRIFLUOROTOLUENE	51.395	21.41	sp vs
				27.530	M TOLUENE			
002	531149	4046	V	29.349			<i>carry-over</i>	
003	5346	117		32.815	M ETHYLBENZENE			
004	25009	296		38.263				
005	7266	129	T	41.181	M M - XYLENE			
006	8620	137		43.042	M O - XYLENE			
007	172787	1210		48.762				
				52.320	M 1,2-DICHLOROBENZENE			

10/30/72

GC VOLATILES SHEET

2000096 CLIENT SAMPLE NO.
11/3/92Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0200

BLK

Client: LE CARPENTERMatrix: WATERLab Sample ID: 92LV1134-MB1Sample wt/vol: 5.00 (g/mL) MLLab File ID: J7240653Level: (low/med) LOWDate Received: 10/07/92% Moisture: not dec. Date Analyzed: 10/07/92Column: (pack/cap) CAPDilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----	Benzene	1.0	U
100-41-4-----	Ethylbenzene	1.0	U
108-88-3-----	Toluene	1.0	U
1330-20-7-----	Xylene (total)	2.0	U

12/88 Rev.

92LV1134-MB1

SAMPLE NO. : 10079226 .01

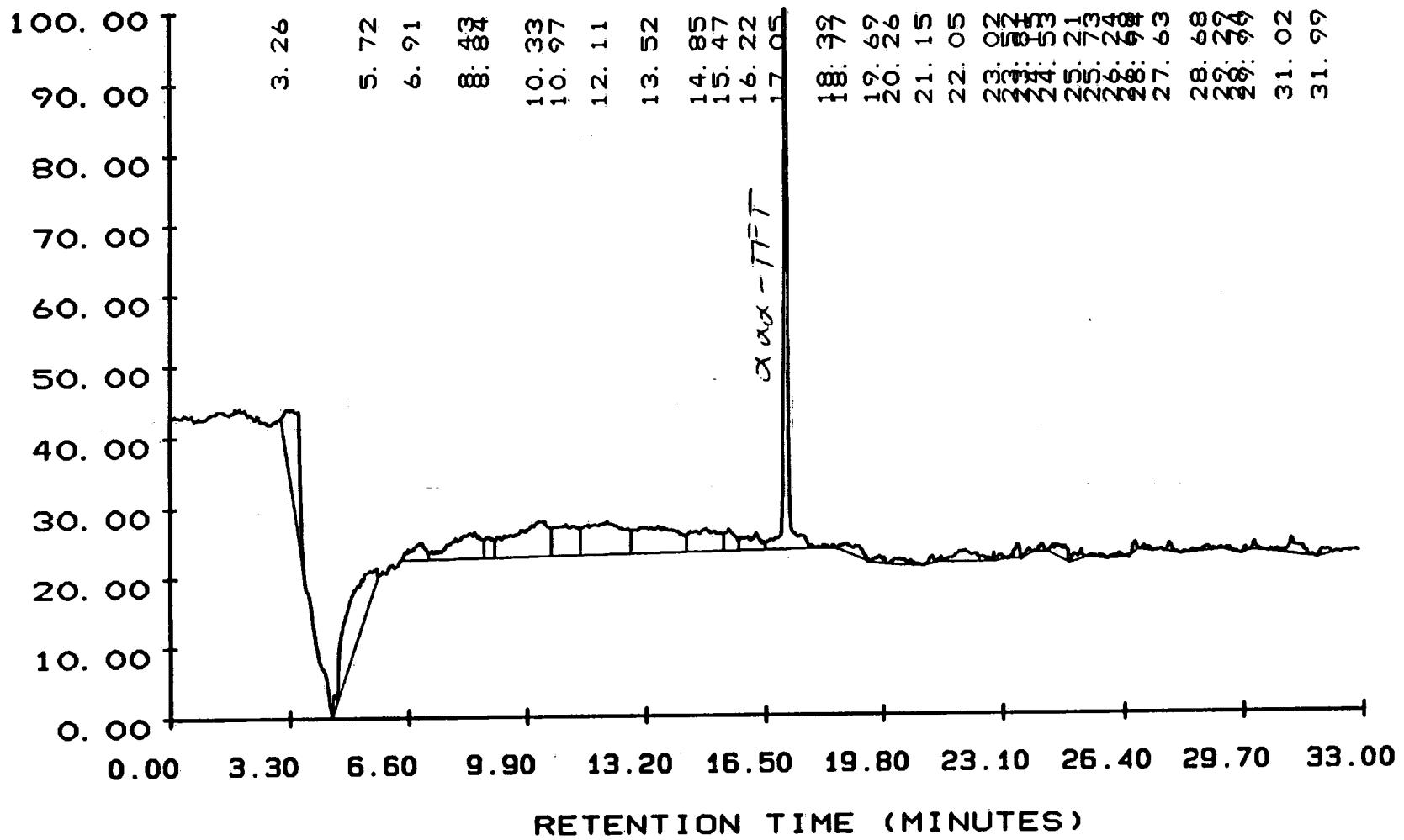
TEST NO. :

METHOD NO. : 26A / 26A

INSTRUMENT: 26

DATE TIME: 10/07/92 17:34:23

PAGE NO. : 01



Y MAXIMUM: 51538.
Y MINIMUM: 48728.

START TIME: 0.00
END TIME: 33.00

0000101

Roy F. Weston, Inc. - Lionville Laboratory

10/07/92 22:25:21

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10079226 .01 INST:26 VIAL:FO SEQ NUMBER:001
 TEST : DATE-TIME INJECTED : 10/07/92 17:34:23
 COLLECTION TIME : 32.86 DATE-TIME PROCESSED : 10/07/92 22:25:21
 METHOD: 26A / 26A REV #: 00003 ANALYST: LINDAD SAMP RATE: 1.56
 CLIENT ID: SAMPLE VOL: 5.0 ML
 CLIENT: COLUMN TYPE: DB624, PID
 LAB ID: 92LV1134-MB1 RAW FILE: RAW2:J7240653
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC	PPB
001	96134	2459	V	3.255			
002	123514	532		5.722			
				6.550 M	1,1-DICHLOROETHENE		
003	18477	664	T	6.915			
004	61024	1053	T	8.430			
005	13638	840	T	8.838 M	TRANS-1,2-DICHLOROET	0.227	
006	97677	1387	T	10.326			
007	54189	1237	T	10.969			
008	96685	1313	T	12.108 M	CIS-1,2-DICHLOROETHE	0.715	
009	83469	1071	T	13.523			
				14.340 M	BENZENE		
010	46752	904	T	14.850			
011	16410	847	T	15.471			
012	19757	663	T	16.217 M	TRICHLOROETHENE		
013	173491	21422	V	17.052 M	aaa-TRIFLUOROTOLUENE	32.526	
014	2438	142	V	18.386 M	2-CHLOROETHYLVINYLET	0.612	
015	14157	357	V	18.774 M	CIS-1,3-DICHLOROPROP	0.811	
016	4781	296	V	19.691 M	TOLUENE	0.103	
017	7712	267	V	20.260 M	TRANS-1,3-DICHLOROPR	0.442	
018	2522	284	V	21.155 M	TETRACHLOROETHENE		
019	21869	456	V	22.055			
020	2368	217	V	23.024			
021	5293	562	V	23.520 M	CHLOROBENZENE		
022	2234	233	V	23.811 M	ETHYLBENZENE	0.063	
023	2778	298	V	24.152 M	M+P-XYLENE		
024	12806	408	V	24.530			
025	5357	357	V	25.215 M	O-XYLENE	0.109	
026	2208	131	V	25.731			
027	3341	191	V	26.242			
028	3194	376	V	26.677			
029	1856	130	V	26.939			
030	3245	341	V	27.625			
031	5658	197	V	28.677			
032	1747	148	V	29.292			
033	1285	215	V	29.737 M	1,3-DICHLOROBENZENE		
034	3149	360	V	29.992 M	1,4-DICHLOROBENZENE		
035	15482	633	V	31.023 M	1,2-DICHLOROBENZENE	0.439	
036	3994	218		31.995			

Recalculation

22.37

0.063

All < DL

39 10/07/92

GC VOLATILES SHEET

0000102 CLIENT SAMPLE NO.

1/13/92

06720-002-015-0260-00

Lab Name: Roy F. Weston, Inc.Work Order: 6720-02-15-0200

BLKMS

Client: LE CARPENTERMatrix: WATERLab Sample ID: 92LV1134-MB1 BSSample wt/vol: 5.00 (g/mL) MLLab File ID: J7240672Level: (low/med) LOWDate Received: 10/07/92% Moisture: not dec. Date Analyzed: 10/07/92Column: (pack/cap) CAPDilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----	Benzene		SP
100-41-4-----	Ethylbenzene		SP
108-88-3-----	Toluene		SP
1330-20-7-----	Xylene (total)		SP

SP: SPIKE COMPOUND

12/88 Rev.

92LV1134-MB1S

SAMPLE NO. : 10079226 .02

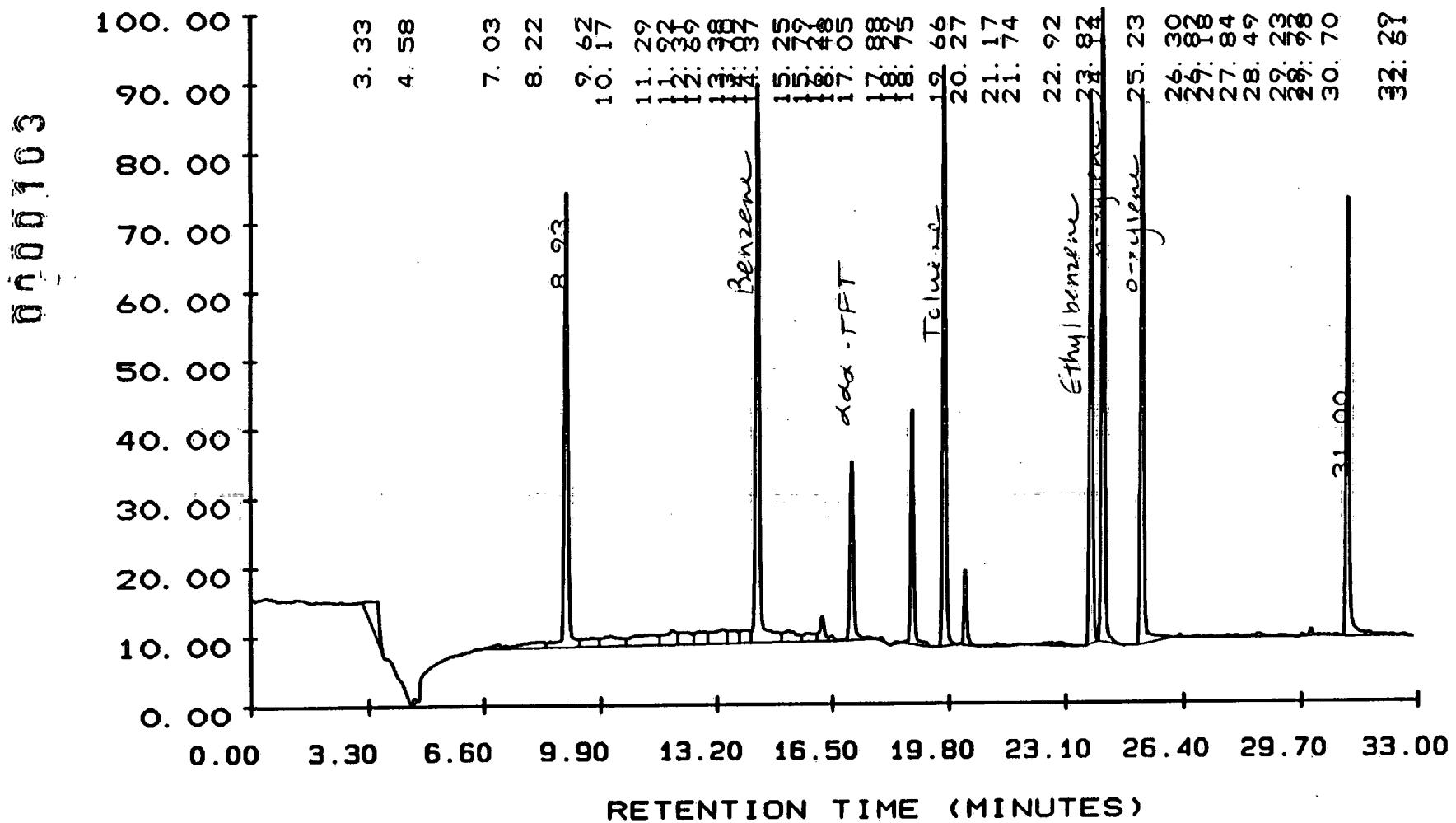
TEST NO. :

METHOD NO. : 26A / 26A

INSTRUMENT: 26

DATE TIME: 10/07/92 18:18:40

PAGE NO. : 01



Y MAXIMUM: 56657.

START TIME: 0.00

Y MINIMUM: 48560.

END TIME: 33.00

0000104

Roy F. Weston, Inc. - Lionville Laboratory

10/07/92 22:25:47

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10079226 .02 INST: 26 VIAL: F0 SEQ NUMBER: 002
 TEST : DATE-TIME INJECTED : 10/07/92 18:18:40
 COLLECTION TIME : 32.86 DATE-TIME PROCESSED : 10/07/92 22:25:47
 METHOD: 26A / 26A REV #: 00003 ANALYST: LINDAD SAMP RATE: 1.56
 CLIENT ID: SAMPLE VOL: 5.0 ML
 CLIENT: COLUMN TYPE: DB624, PID
 LAB ID: 92LV1134-MB1MS RAW FILE: RAW2:J7240672
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT	CONC	PPB	Recalculation
001	78150	2571	V	3.331					
002	4229	681		4.580					
				6.550 M	1,1-DICHLOROETHENE				
003	15648	532	T	7.026					
004	34406	730	T	8.224					
005	378387	53093	T	8.930 M	TRANS-1,2-DICHLOROET	31.918			
006	32512	1045	T	9.619					
007	45293	1243	T	10.171					
008	63859	1302	T	11.294					
009	44166	1810	T	11.916 M	CIS-1,2-DICHLOROETHE	1.214			
010	36454	1392	T	12.315					
011	33818	1505	T	12.690					
012	49952	1677	T	13.379					
013	30304	1536	T	13.700					
014	30259	1536	T	14.020					
015	482835	65101	T	14.368 M	BENZENE	31.423			21.69
016	35821	1333	T	15.254					
017	23398	986	T	15.793					
018	26125	2881	T	16.205 M	TRICHLOROETHENE	1.327			
019	5798	596	V	16.483					
020	153126	20763	V	17.046 M	aaa-TRIFLUOROTOLUENE	31.499			22.13
021	2739	418	V	17.877					
022	2656	266	V	18.288 M	2-CHLOROETHYLVINYLET	0.763			
023	166726	27169	V	18.753 M	CIS-1,3-DICHLOROPROP	51.056			
024	396755	67252	V	19.665 M	TOLUENE	30.555			21.39
025	49645	8635	V	20.268 M	TRANS-1,3-DICHLOROPR	11.396			
026	3693	340	V	21.169 M	TETRACHLOROETHENE				
027	2272	182	V	21.742					
028	19002	433	V	22.916					
				23.420 M	CHLOROBENZENE				
029	358944	62601	V	23.817 M	ETHYLBENZENE	30.873			21.52-
030	424826	73407	V	24.143 M	M+P-XYLENE	30.264			22.06
031	389523	63737	V	25.227 M	O-XYLENE	30.386			21.27
032	2931	367	V	26.298					
033	1728	194	V	26.822					
034	1094	186	V	27.179					
035	6003	281	V	27.844					
036	10138	439	V	28.486					
037	4365	234	V	29.232					
038	2202	350	V	29.723 M	1,3-DICHLOROBENZENE				

601 10/07/92

0000105

SAMPLE: 10079226 .02

PAGE NUMBER: 2

DATE-TIME INJECTED : 10/07/92 18:18:40

DATE-TIME PROCESSED : 10/07/92 22:25:47

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR NAME	HEIGHT CONC PPB
039	5171	817	V	29.975	M 1,4-DICHLOROBENZENE	0.067
040	4352	201	V	30.698		
041	317946	50779	V	31.000	M 1,2-DICHLOROBENZENE	31.194
042	2042	240	V	32.291		
043	3142	307		32.610		

0000106

FORM7GC
GC Volatiles Continuing Calibration

RFW:
Work Order Number: NONE
Client Name: LAB
Date of Init. Calibration: 10/07/92 Instrument Number: 26
 Column Used: DB624, PID
 Matrix: WATER
 True Concentration: 20 (ppb)

MIX NO.	GC SAMPLE ID	DESCRIPTION	DATE/TIME ANALYZED
1	10079226.02	92LV1134-MB1MS	10/07/92 18:18:40

COMPOUND NAME	MIX	RT#	RT WINDOW	CON(ppb)	% REC	QC LIMITS(ppb)	QC LIMITS(%)
aa-Trifluorotoluene	01	17.046	16.95-17.14	22.1	110.6	NR	-
Benzene	01	14.368	14.27-14.47	21.6	108.4	NR	-
Ethylbenzene	01	23.817	23.72-23.92	21.5	107.6	NR	-
Toluene	01	19.665	19.57-19.76	21.3	107.0	NR	-
Kylene (total)	01		-	21.2	106.4	NR	-

* - outside QC limits

NR - not reported

GC VOLATILES SHEET

000010 CLIENT SAMPLE NO.

MW-25MS

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0200Client: LE CARPENTERMatrix: WATERLab Sample ID: 9209L010-003 MSSample wt/vol: 5.00 (g/mL) MLLab File ID: J6281165Level: (low/med) LOWDate Received: 09/24/92

% Moisture: not dec.

Date Analyzed: 10/07/92Column: (pack/cap) PACKDilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----	Benzene		SP
100-41-4-----	Ethylbenzene		SP
108-88-3-----	Toluene		SP
1330-20-7-----	Xylene (total)		SP

SP: SPIKE COMPOUND

12/88 Rev.

9209L010-003S

SAMPLE NO. : 10069220 .06

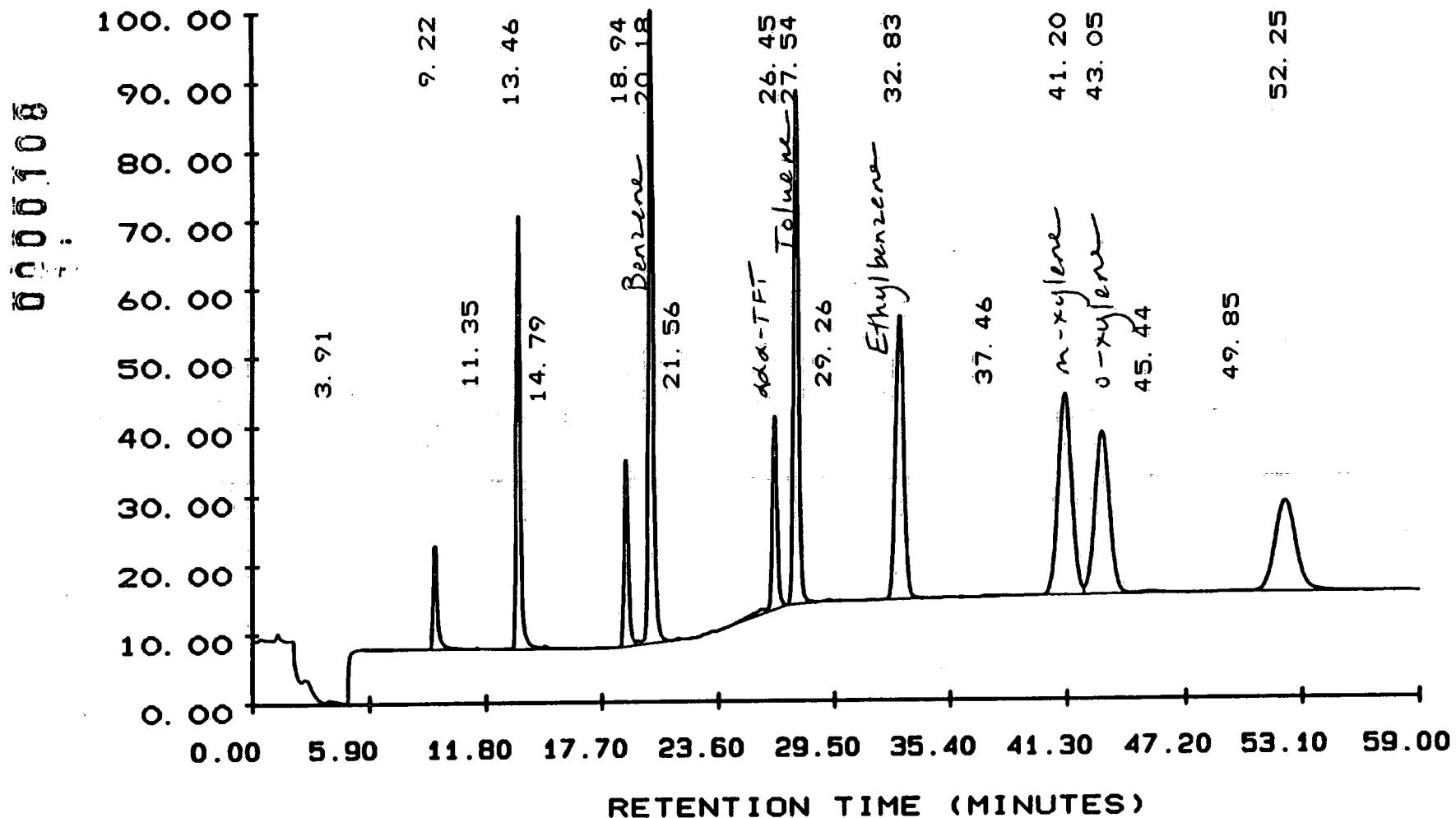
TEST NO. :

METHOD NO. : 20E / 20B

INSTRUMENT: 20

DATE TIME: 10/07/92 00:09:44

PAGE NO. : 01



Y MAXIMUM: 19536.

Y MINIMUM: 5870.

START TIME: 0.00

END TIME: 59.00

0000109

Roy F. Weston, Inc. - Lionville Laboratory

10/07/92 01:17:49

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10069220 .06
 TEST : 0602X
 COLLECTION TIME : 59.00
 METHOD: 20E / 20B REV #: 00122 ANALYST: LINDAD SAMP RATE: 0.78
 CLIENT ID: MW-25 SAMPLE VOL: 5.0 ML
 CLIENT: LE CARPENTER COLUMN TYPE: 1% SP1000, PID
 LAB ID: 9209L010-003MS RAW FILE: RAW2:J6281165
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR COMPONENT NAME	HEIGHT CONC PPB
001	14637	411		3.913		<i>SP vs BS</i>
002	305400	20338	T	9.217		
003	7303	248	V	11.346		
004	1181033	85263	T	13.458	1,2-DICHLOROETHENE	55.216
005	15115	563	V	14.789		
006	540965	36610	T	18.936		
007	1912227	124800	V	20.178	BENZENE	55.172 22.14
008	4917	306	V	21.557		
009	680499	37912	V	26.450	aaa-TRIFLUOROTOLUENE	50.551 21.07
010	1779221	101291	V	27.535	TOLUENE	56.270 20.70
011	10478	301		29.255		
012	1579647	55776		32.830	ETHYLBENZENE	56.480 20.51
013	16950	280		37.456		
014	1834971	39605	T	41.201	M - XYLENE	56.402 20.39
015	1640165	31985	T	43.053	O - XYLENE	57.328 20.42
016	37939	477		45.436		
017	16702	242	T	49.847		
018	1334887	18020		52.249	1,2-DICHLOROBENZENE	57.804

All compounds were quantitated using method 20B
 except those which are labeled.

PWJ 10/72/92

0000110 CLIENT SAMPLE NO.

GC VOLATILES SHEET

MW-25MSCON

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0200Client: LE CARPENTERMatrix: WATERLab Sample ID: 9209L010-003 MSSample wt/vol: 5.00 (g/mL) MLLab File ID: J7240769Level: (low/med) LOWDate Received: 09/24/92% Moisture: not dec. Date Analyzed: 10/07/92Column: (pack/cap) CAPDilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----	Benzene		SP
100-41-4-----	Ethylbenzene		SP
108-88-3-----	Toluene		SP
1330-20-7-----	Xylene (total)		SP

SP: SPIKE COMPOUND

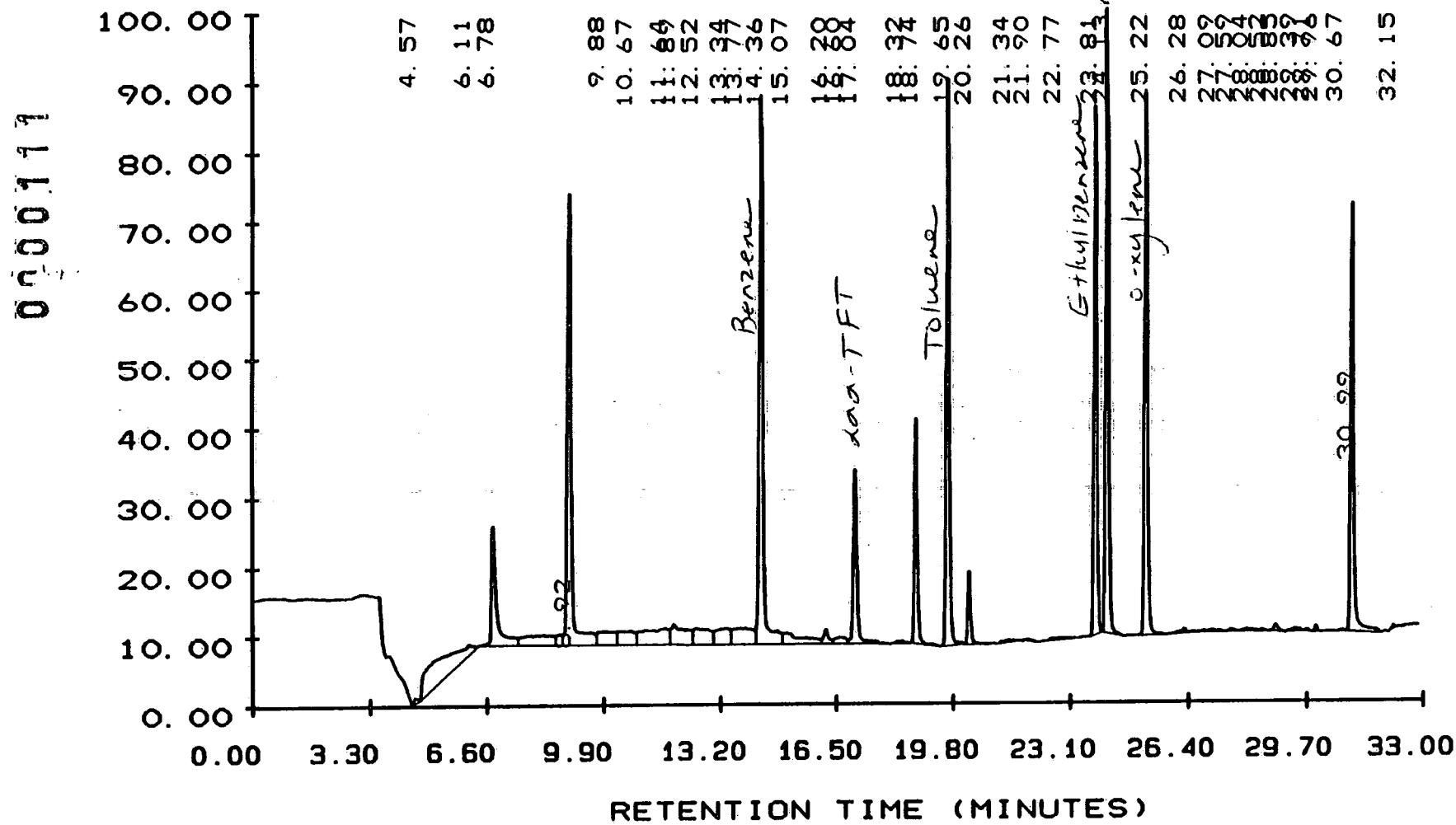
12/88 Rev.

9209L010-003S

SAMPLE NO. : 10079226 . 08

TEST NO. :

METHOD NO. : 26A / 26A



Y MAXIMUM: 56076.
Y MINIMUM: 48566.

START TIME: 0.00
END TIME: 33.00

000112

Roy F. Weston, Inc. - Lionville Laboratory

10/09/92 06:19:53

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10079226 .08
 TEST : 0602X
 COLLECTION TIME : 32.86
 METHOD: 26A / 26A REV #: 00003 ANALYST: LINDAD SAMP RATE: 1.56
 CLIENT ID: MW-25 SAMPLE VOL: 5.0 ML
 CLIENT: LE CARPENTER COLUMN TYPE: DB624, PID
 LAB ID: 9209L010-003MS RAW FILE: RAW2:J7240769
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT	CONC	PPB	Recalculations
001	4242	576	V	4.567					
002	187104	1135		6.108					
003	132243	12913	T	6.776	M 1,1-DICHLOROETHENE	24.370			
004	459392	48859	T	8.921	M TRANS-1,2-DICHLOROET	29.350			
005	48762	1515	T	9.884					
006	49139	1510	T	10.672					
007	90771	1768	T	11.636					
008	64986	2175	T	11.894	M CIS-1,2-DICHLOROETHE	1.581			
009	57005	1759	T	12.524					
010	48384	1763	T	13.337					
011	71456	1761	T	13.765					
012	436890	59423	T	14.358	M BENZENE	28.666			19.76
013	51661	1226	T	15.074					
014	15565	1562	T	16.199	M TRICHLOROETHENE	0.275			
015	16538	733	T	16.597					
016	144454	18770	V	17.036	M aaa-TRIFLUOROTOLUENE	28.392			19.91
017	4525	278	V	18.323	M 2-CHLOROETHYL VINYLET	0.778			
018	141312	24124	V	18.744	M CIS-1,3-DICHLOROPROP	45.350			
019	364768	61214	V	19.655	M TOLUENE	27.809			19.46
020	46368	7859	V	20.258	M TRANS-1,3-DICHLOROPR	10.380			
021	7238	350	V	21.343	M TETRACHLOROETHENE				
022	3744	267	V	21.904					
023	8934	283	V	22.769					
				23.420	M CHLOROBENZENE				
024	326330	56940	V	23.806	M ETHYLBENZENE	28.077			19.57
025	385062	67111	V	24.132	M+p-XYLENE	27.587			20.11
026	344096	58363	V	25.216	M o-XYLENE	27.819			19.46
027	5370	464	V	26.282					
028	6867	224	V	27.088					
029	2618	262	V	27.588					
030	5190	293	V	28.044					
031	1357	130	V	28.524					
032	6669	760	V	28.852					
033	6317	380	V	29.387					
034	1699	282	V	29.712	M 1,3-DICHLOROBENZENE				
035	3917	689	V	29.964	M 1,4-DICHLOROBENZENE	0.004			
036	2714	157	V	30.666					
037	287878	46302	V	30.987	M 1,2-DICHLOROBENZENE	28.448			
038	2114	361		32.155					

15.1 10.3014 ✓

0000113 CLIENT SAMPLE NO.

GC VOLATILES SHEET

MW-25MSD

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0200Client: LE CARPENTERMatrix: WATERLab Sample ID: 9209L010-003 MSDSample wt/vol: 5.00 (g/mL) MLLab File ID: J7281194Level: (low/med) LOWDate Received: 09/24/92% Moisture: not dec. Date Analyzed: 10/07/92Column: (pack/cap) PACKDilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----	Benzene	SP
100-41-4-----	Ethylbenzene	SP
108-88-3-----	Toluene	SP
1330-20-7-----	Xylene (total)	SP

SP: SPIKE COMPOUND

12/88 Rev.

9209L010-003T

SAMPLE NO. : 10069220 . 07

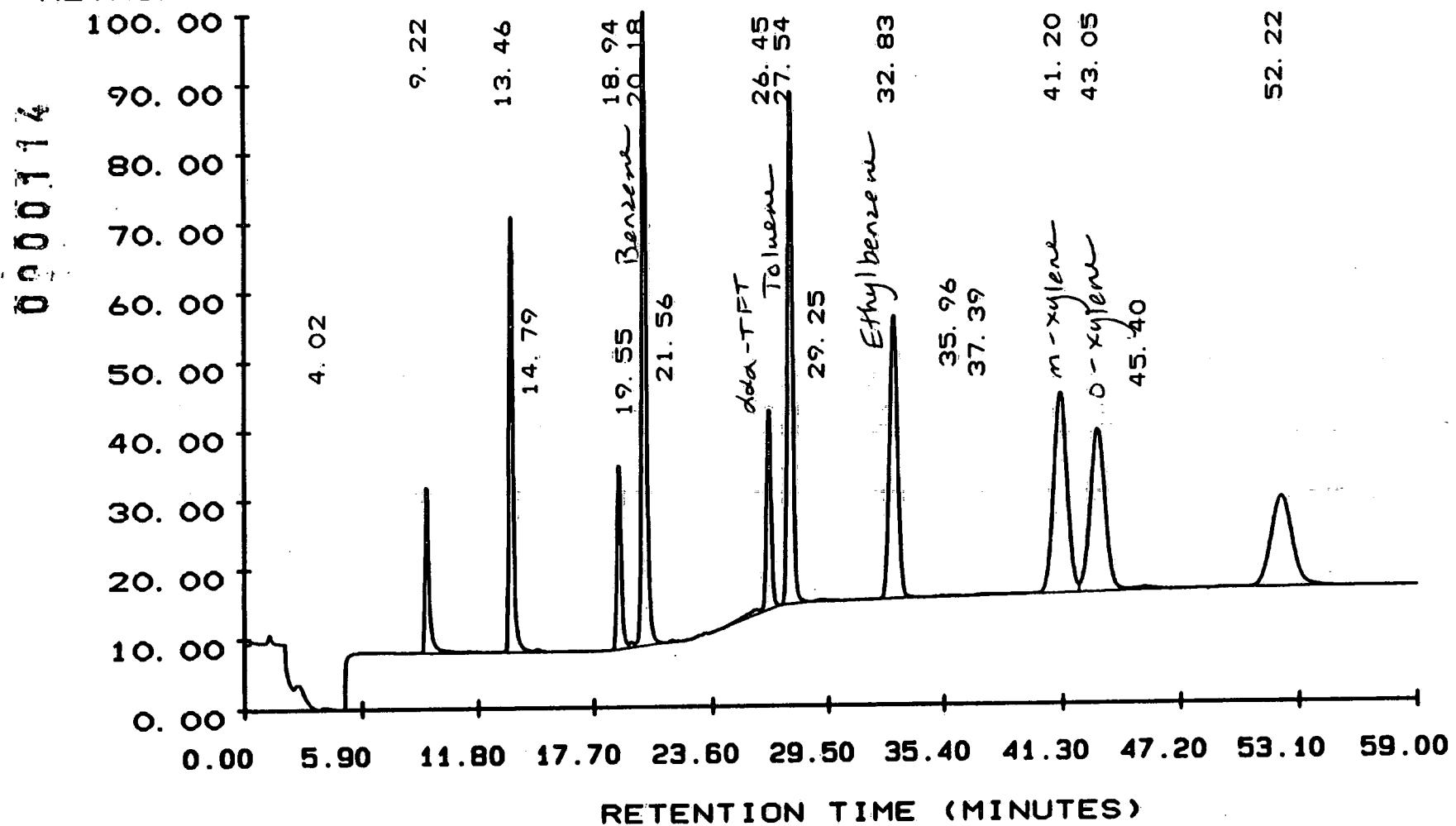
TEST NO. :

METHOD NO. : 20E / 20E

INSTRUMENT: 20

DATE TIME: 10/07/92 01:20:24

PAGE NO. : 01



000115

Roy F. Weston, Inc. - Lionville Laboratory

10/07/92 23:00:42

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10069220 .07 INST:20 VIAL:FO SEQ NUMBER:007
 TEST : 0602X DATE-TIME INJECTED : 10/07/92 01:20:24
 COLLECTION TIME : 59.00 DATE-TIME PROCESSED : 10/07/92 23:00:42
 METHOD: 20E / 20E REV #: 00122 ANALYST: LINDAD SAMP RATE: 0.78
 CLIENT ID: MW-25 SAMPLE VOL: 5.0 ML
 CLIENT: LE CARPENTER COLUMN TYPE: 1st SP1000, PI
 LAB ID: 9209L010-003MSD RAW FILE: RAW2:J7281194
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC	PPB
001	8581	320		4.020			
002	461350	30854		9.217			
003	1130825	81636	T	13.459	M 1,1-DICHLOROETHENE	52.848	
004	15318	584	V	14.794			
005	511671	34473	T	18.943			
006	15239	991	T	19.548	M TRICHLOROETHENE	0.613	
007	1816947	119260	V	20.185	M BENZENE	52.698	
008	5506	336	V	21.562	M 2-CHLOROETHYL VINYLET	0.620	
				25.770	M TETRACHLOROETHENE		
009	664589	37614	V	26.454	M aaa-TRIFLUOROTOLUENE	50.146	
010	1703279	96589	V	27.540	M TOLUENE	53.626	
011	11778	316	V	29.246	M CHLOROBENZENE		
012	1510579	53399		32.832	M ETHYLBENZENE	54.044	
				34.500	M BROMOBENZENE		
013	8324	113	V	35.955			
014	19954	306	T	37.393			
015	1776257	37945	T	41.195	M M - XYLENE	54.008	
				43.000	M O - XYLENE		
016	1583823	30718	T	43.051	M P - XYLENE	45.059	
017	44570	553		45.404	M 2-CHLOROTOLUENE	1.782	
				50.420	M 1,3-DICHLOROBENZENE		
018	1269287	17176		52.222	M 1,4-DICHLOROBENZENE	46.215	
				52.320	M 1,2-DICHLOROBENZENE		
				53.760	M 1,4-DICHLOROBENZENE		

*SP VS BS**21.15**20.90**19.73**19.63**19.54**19.62*

000011 CLIENT SAMPLE NO.

GC VOLATILES SHEET

MW-25MSDCON

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0200Client: LE CARPENTERMatrix: WATERLab Sample ID: 9209L010-003 MSDSample wt/vol: 5.00 (g/mL) MLLab File ID: J7240784Level: (low/med) LOWDate Received: 09/24/92% Moisture: not dec. Date Analyzed: 10/07/92Column: (pack/cap) CAPDilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----Benzene		SP
100-41-4-----Ethylbenzene		SP
108-88-3-----Toluene		SP
1330-20-7-----Xylene (total)		SP

SP: SPIKE COMPOUND

12/88 Rev.

9209L010-003T

SAMPLE NO.: 10079226 .09

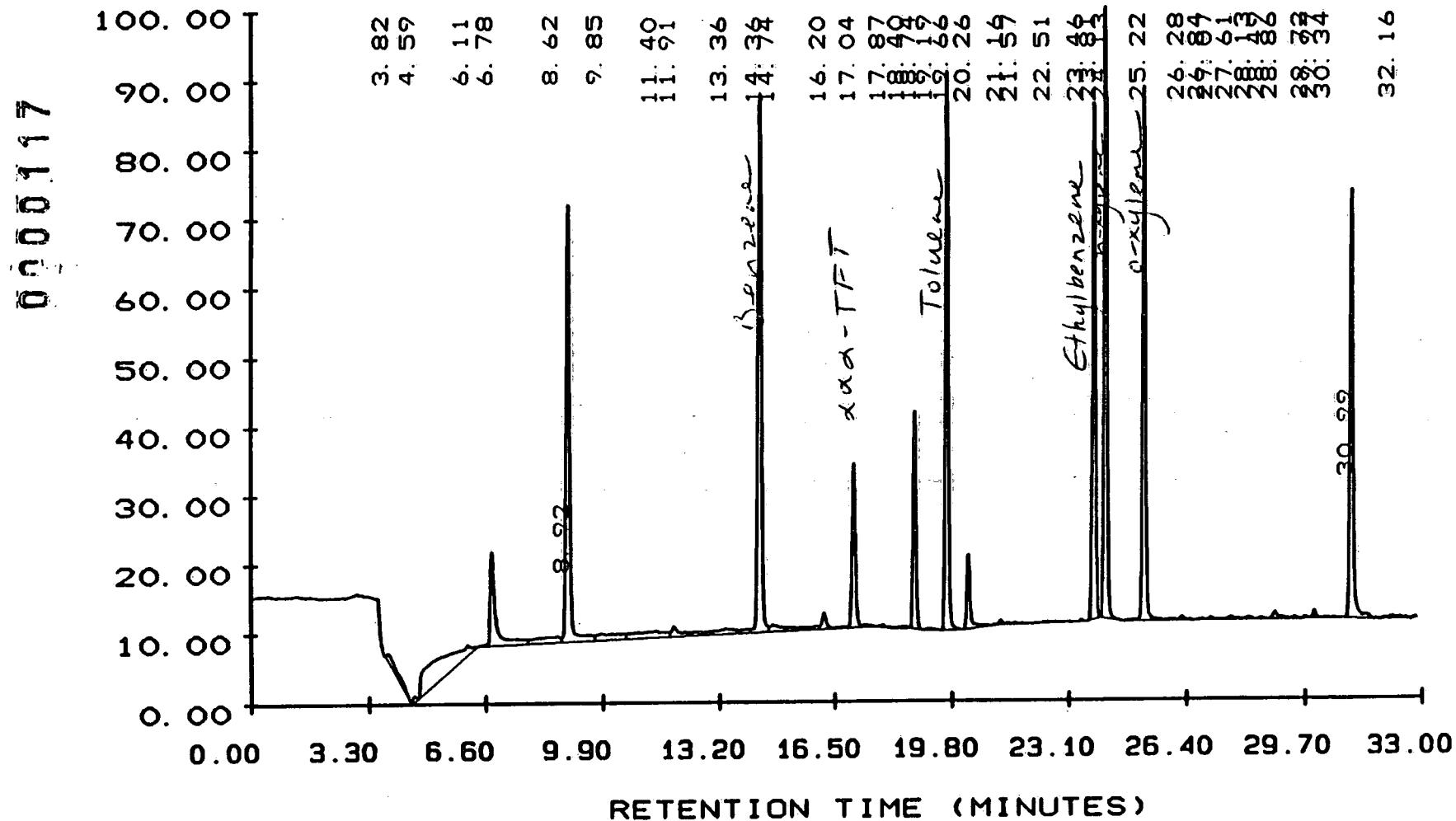
TEST NO.:

METHOD NO.: 26A / 26A

INSTRUMENT: 26

DATE TIME: 10/07/92 23:28:50

PAGE NO.: 01



0200118

Roy F. Weston, Inc. - Lionville Laboratory

10/09/92 06:20:16

MULTILEVEL EXTERNAL STANDARD

SAMPLE: 10079226 .09
 TEST : O602X
 COLLECTION TIME : 32.86
 METHOD: 26A / 26A REV #: 00003 ANALYST: LINDAD SAMP RATE: 1.56
 CLIENT ID: MW-25 SAMPLE VOL: 5.0 ML
 CLIENT: LE CARPENTER COLUMN TYPE: DB624, PID
 LAB ID: 9209L010-003MSD RAW FILE: RAW2:J7240784
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	HEIGHT CONC	PPB
001	26240	823	V	3.819			
002	4862	633	V	4.589			
003	177843	1112		6.110			
004	110470	10075	T	6.781	M 1,1-DICHLOROETHENE	18.606	
005	31904	639	T	8.619			
006	335155	47408	T	8.920	M TRANS-1,2-DICHLOROET	28.470	
007	31405	697	T	9.854			
008	43328	686	T	11.402			
009	19302	1068	T	11.907	M CIS-1,2-DICHLOROETHE	0.469	
010	31853	556	T	13.365			
011	392269	57822	T	14.357	M BENZENE	27.888	19.21
012	14931	647	T	14.736			
013	34342	1685	T	16.198	M TRICHLOROETHENE	0.373	
014	128992	17910	V	17.036	M aaa-TRIFLUOROTOLUENE	27.051	12.95
015	2477	231	V	17.871			
016	3130	192	V	18.401	M 2-CHLOROETHYLVINYLET	0.673	
017	132346	23695	V	18.744	M CIS-1,3-DICHLOROPROP	44.546	
018	2726	185	V	19.191			19.19
019	355174	60389	V	19.656	M TOLUENE	27.434	
020	54829	8074	V	20.258	M TRANS-1,3-DICHLOROPR	10.662	
021	3821	450	V	21.158	M TETRACHLOROETHENE		
022	2733	185	V	21.567			
023	3878	140	V	22.513			
024	1348	239	V	23.459	M CHLOROBENZENE		19.21
025	319834	55899	V	23.807	M ETHYLBENZENE	27.562	
026	378502	66290	V	24.134	M M+P-XYLENE	27.238	19.36
027	341446	57880	V	25.217	M O-XYLENE	27.588	19.29
028	6387	422	V	26.282			
029	1184	143	V	26.836			
030	1715	198	V	27.071			
031	4192	271	V	27.613			
032	2093	227	V	28.129			
033	1549	158	V	28.490			
034	11494	797	V	28.858			
035	1594	265	V	29.719	M 1,3-DICHLOROBENZENE		
036	5094	821	V	29.967	M 1,4-DICHLOROBENZENE	0.069	
037	2214	106	V	30.342			
038	281466	46417	V	30.990	M 1,2-DICHLOROBENZENE	28.519	150 vi 1613.17
039	9146	337		32.159			

SAMPLE PREP RECORD

Sheet no.: 1

Extract. Date: 10/06/92

Extraction Batch No: 92LV5140

Analyst: SY

Method: N/A

Test: 0602

Cleanup Date:

Analyst:

Client: LE CARPENTER

LIMS Report Date: 11/02/92

Solvent:

Adsorbent:

Sample No:	Client Name Client ID	pH	Initial Surr. WT/VOL	Spike Final Mult. VOL	Final VOL	Split Mult.	GPC Y/N	% Solids	C/D FACTOR
9209L010-	LE CARPENTER								
001 X	BTEX TB	7	5	1.0	5	1.0	N	0.0	1.0
002 X	BTEX FB	7	5	1.0	5	1.0	N	0.0	1.0
003 X	MW-25	7	5	1.0	5	1.0	N	0.0	1.0
003 XS	MW-25	7	5	1.0	1.0	5	1.0	N	0.0
003 XT	MW-25	7	5	1.0	1.0	5	1.0	N	0.0
004 X	MW-4	7	5	1.0	5	1.0	N	0.0	1.0
005 X	MW-14S	7	5	1.0	5	1.0	N	0.0	1.0
006 X	MW-22	7	5	1.0	5	1.0	N	0.0	1.0
92LV5140-MB1 X		7	5	1.0	5	1.0	N	0.0	1.0
92LV5140-MB1 XS		7	5	1.0	1.0	5	1.0	N	0.0

Comments:

Surrogate: 5UL X aaa--TFT @ 20UG/ML

Spike: 10 UL X MIX B @ 10 UG/ML

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer

SAMPLE PREP RECORD

Sheet no.: 1

Extract. Date: 10/07/92

Extraction Batch No: 92LV1134

Analyst: SY

Method: N/A

Test: 0602

Cleanup Date:

Analyst:

Client: LE CARPENTER

LIMS Report Date: 11/02/92

Solvent:

Adsorbent:

Sample No:	Client Name Client ID	pH	Initial Surr. WT/VOL	Spike Mult.	Final VOL	Final VOL	Split Mult.	GPC Y/N	% Solids	C/D FACTOR
9209L010-	LE CARPENTER									
001 X C1 BTEX TB		7	5.0	1.0	5		1	N	0.0	1.0
002 X C1 BTEX FB		7	5.0	1.0	5		1	N	0.0	1.0
003 X C1 MW-25		7	5.0	1.0	5		1	N	0.0	1.0
003 XSC1 MW-25		7	5.0	1.0	1.0	5	1	N	0.0	1.0
003 XTC1 MW-25		7	5.0	1.0	1.0	5	1	N	0.0	1.0
004 X C1 MW-4		7	5.0	1.0	5		1	N	0.0	1.0
005 X C1 MW-14S		7	5.0	1.0	5		1	N	0.0	1.0
006 X C1 MW-22		7	5.0	1.0	5		1	N	0.0	1.0
006 X C2 MW-22		7	5.0	1.0	5		1	N	0.0	1.0
92LV1134-MB1 X		7	5.0	1.0	5		1	N	0.0	1.0
92LV1134-MB1 XS		7	5.0	1.0	1.0	5	1	N	0.0	1.0

Comments:

Surrogate: 5 UL X 20 UG/ML aaa-TFT

Spike: 10 UL X 10 UG/ML MIX B

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer

000121

WESTON

END OF PACKAGE